CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

© 1981

DERWENT PUBLICATIONS LTD.

Rochdale House
128 Theobalds Road
London WC1X 8RP England

WEEK D06
25 MARCH 81
07781D - 09748D

ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	14 JAN - 22 JAN 81	884,298 - 884,418
-Non Delayed	16 JAN 81	885,243 - 885,346
BRAZIL	13 JAN 81	7,806,664 - 8,007,316
CANADA	30 DEC 80	1,092,301 - 1,092,750
DENMARK	5 JAN 81	7,902,069 - 8,002,683
W.GERMANY		
-OLS	29 JAN 81	2,853,764 - 3,028,358
-DAS	29 JAN 81	1,570,405 - 3,020,269
EUROPE		
-Unexamined	28 JAN 81	22,763 - 23,199
-Granted	28 JAN 81	0,214 - 8,692
FRANCE*	7 NOV 80 (BOPI 12 DEC 80)	2,453,584 - 2,454,252
UNITED KINGDOM	4 FEB 81	1,583,731 - 1,584,160
		2,052,931 - 2,053,630
JAPAN		
-Unexamined	—	47,006,819 - 55,011,138
	28 NOV - 4 DEC 80	55,152,782 - 55,156,200
-Examined	8 JAN - 14 JAN 81	81,000,401 - 81,001,760
NETHERLANDS	8 JAN - 19 JAN 81	7,905,278 - 8,004,046
NORWAY	5 JAN 81	7,901,872 - 8,003,467
PORTUGAL	14 JAN 81	65,762 - 71,631
ROMANIA	MARCH 80	64,522 - 74,077
SWEDEN	19 JAN 81	7,904,048 - 8,006,264
SOVIET UNION	—	736,389 - 740,252
UNITED STATES		
-Reissues	20 JAN 81	Re30,483 - Re30,490
-Patents	20 JAN 81	4,245,357 - 4,246,656
PCT	22 JAN 81	8,100,035 - 8,100,184

*Printed patents actually published early December, 1980 - early January, 1981

Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abtract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany, Sweden and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

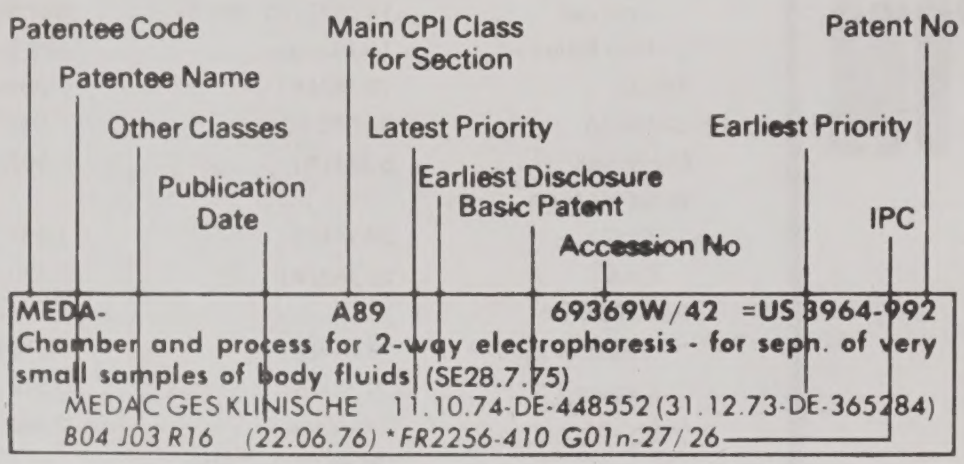
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
AE	Polymer & General Chemistry
A--	Polymer Applns.
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E--	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.



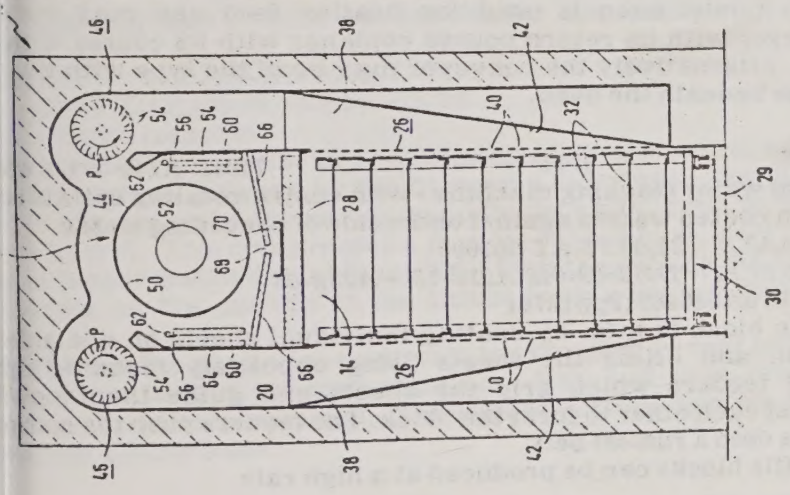
Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

/ D11 74203 S/47 = DS 2121-577
atic baking system
YASHI T 25.11.70-JP-103911 (01.05.70-JP-036796)
*35 (29.01.81) *DE2121-577 A21c-13/02*
1 as 121577 Div.in 2167250 (7pp39)
atic dough raising plant includes an endless conveyor by the pre-shaped pieces of dough are raised in a meandering up through a cabinet. Hot and/or moist gas is introduced gh many openings distributed over the height to produce zones erent temp. and humidity.
openings are equipped with independently controlled ised valves which work in conjunction with temp. probes and ity sensors, pref. through temp. controllers and humidistats.
h opening has a steam and a hot air supply line. This facilitates justment of optimum temp. and moisture conditions.(DS)

- D11 18720 C/11 = DS 2857-125
vapour generator for baking oven - with plates moistened at acing heat storage plates
BAG DEUT BACKOFEN 17.08.78-DE-857125 (17.08.78-DE-118)
*.01.81) *DE2857-125 A21b-03/04*
78 as 857125 (8pp39)
vapour generator for a baking oven is fitted with a tube, d by a burner and on both sides of it two parallel vertical plates as vapour raising plates. The water is introduced to the ce of the nearest plate but on the side away from the heated The surface towards the heated tube has been blackened. The d plate is designed as a heat storage plate.
s ensures a uniformly good heat reception and evaporation ity of the vapour raising plates because any scale deposit will fect the blackened front surface.(DS).



R D11 05896 D/05 = EP --22-901
th-surfaced wafer prodn. - by baking dough contg. wheat and our in waffle iron heated to different surface temps. (PT 19.6.80)
RRERO OHG 20.07.79-DE-929496
*.01.81) *DE2929-496 A21d-13/08 + A21d-10/04*
80 as 101740 (25pp200) (G) NO-CITNS. E(AT BE CH DE FR GB LU NL SE)
rs having a smooth, dense surface and a cellular internal ure, are made by (1) prepg. a dough, (2) applying measured out quantities on waffle irons, having at least one smooth surface, ich temp. difference between the lower and upper waffle irons 0 deg C and the cooler waffle iron temp. is at least 150 deg. C 3) baking this dough in waffle iron for 2.5-3 min. to wafer ness 2.5-3 mm.
gh prepn. comprises (i) introducing spice, baking powder and ener into water and stirring while adding soya flour. (ii) Flour hole milk powder are distributed in the aq. soln. obtd. in (i). atio water : flour is 1.6 : 1. (iii) Plant oil and an oil-emulsifier ided. Emulsifier proportion is 4-8 wt.% w.r.t. oil wt. (iv) The sn. obtd. is beaten, pref. for 10 min., in a mixer..
wafers are used as filled sandwich wafers consisting of 2 or wafer layers.

PALY/ ★ D11 08127 D/06 ★EP --22-989
Wheat flour for bread baking - humidified before and after husking, ground wet, mixed to dough and ground after drying
PALYI L 12.07.79-DE-928250
P41 (28.01.81) A21d-10 A21d-13 B02b-05/02 B02c-09/04
10.07.80 as 103979 (12pp39) (G) US1751032 US2527585 GB-920554 US2584893 GB1258230 US2413472 US1334366 US4038433 E(CH FR GB IT LI SE)
Cereals, esp. wheat, are ground to flour for bread baking by passing the qrains from a pneumatic sifter to a humidifier where the moisture content is raised to 13-18%. The moist grains are tempered for 20-30 min. and passed into a husking machine. Another humidifier raises the moisture content to 25-55% and after retention for 8-12 hr. a wet mill produces the flour which is transported by a screw conveyor to a dough mixer..
The bread, baked from this flour, has a high nutritive value and keeps much longer.

COLL/ ★ D11 08265 D/06 ★FR 2454-070
thermal treatment chamber for prod. on trolley, e.g. dough pieces - rotates trolley on its own wheels about vertical axis
COLLET J E M 12.04.79-FR-009258
Q77 (12.12.80) A21b-01/44 A23l-03 F27b-09/16
12.04.79 as 009258 (11pp448)
A thermal treatment chamber for prods. carried on a trolley which is wheeled into the chamber and then rotated about a vertical axis while heating/cooling gas or vapour is directed on to the prods.
The rotary drive to the trolley is housed in the base of the chamber. During the rotation, the trolley remains supported on its own wheels which allow it to rotate on its central, vertical axis. The trolley base automatically centres on and engages a rotary drive dog as the trolley is wheeled into the chamber. Hot and/or cold air etc. for circulation inside the chamber is pref. supplied by units mounted on top of the chamber.
Used as a thermal treatment chamber partic. for warming, heating, cooking, cooling or refrigerating foodstuffs etc.. The cabinet is partic. applicable to bakeries for controlled proving of bread dough pieces. Cheaper chamber construction is achieved because trolley wheels support trolley during rotation. Space saving and heat energy saving by virtue of modular assembly of chambers.

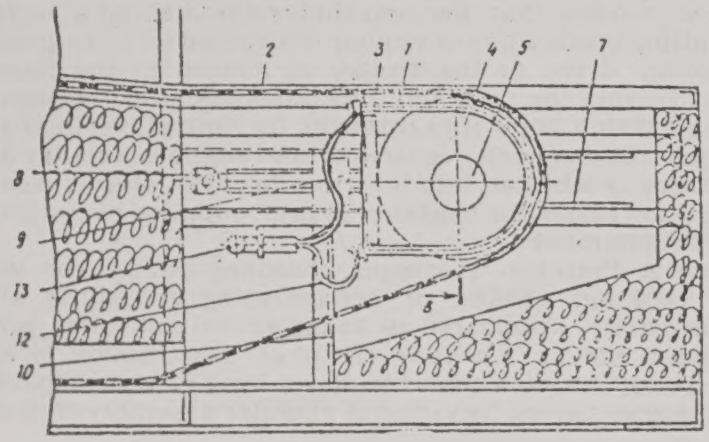
ORIY ★ D11 08437 D/06 ★J5 5153-549
Improving colour, taste and flavour of processed flour foods - by adding lipoxidase and lipase
ORIENTAL YEAST KK(MEIJ TAKS) 21.05.79-JP-061499
(29.11.80) A21d-02/08
21.05.79 as 061499 (4pp5)
Method comprises adding lipoxidase 5 x 10 power 5 - 3 x 10 power 6 unit and lipase 1 x 10 power 3 - 2 x 10 power 4 units to 1 kg of unbleached flour. Processed flour foods (e.g. bread, breadcrumb, noodle, etc.) excellent in colour and taste and flavour can be prepd. from unbleached flour. The lipase and lipoxidase together show synergic effect. Desirable effect can be attained with minimising the amount of lipoxidase.

NISY ★ D11 08443 D/06 ★J5 5153-572
Using plastics rolling pin in noodle prepn. - where rolling pin is made by mixing saponified EVA copolymer and glass fibres and forming into shape
NIPPON SYNTH CHEM IND 17.05.79-JP-061295
(29.11.80) A23l-01/16
17.05.79 as 061295 (5pp5)
Method comprises mixing noodle materials, kneading the mixt. with water, winding the dough around a rolling pin, stretching it and drying it. The rolling pin is prepd. by mixing saponified EVA copolymer and short glass fibre in weight proportion of 80-30:20-70 and forming the mixt. in bar form. The rolling pin has mechanically strength and suitable elasticity. It also shows high affinity to noodle dough. The rolling pin is not heavy and does not crack as does glass or rust as does metal. It is more durable than bamboo bars and does not have the disadvantage of loose bamboo tips.

HURK/ ★ D11 08999 D/06 ★NL 7905-305
Dispenser for accurate quantities esp. of dough - ensures maintenance of cell structure by gentle suction and compression
HURKMANS A 06.07.79-NL-005305
(08.01.81) A21c-05/06
06.07.79 as 005305 (15pp1014)
Each of the pistons which reciprocate vertically, one in each of the rotating chambers of a machine for dispensing predetermined quantities of a viscous, plastic material, esp. of dough, works with a fixed mechanism such as a cam track for the generation of its upwards and downwards motion. During operation the chambers rotate on a common axis, and they come, in soquence in line with a store of dough in the fixed section of the machine, with a surplus chamber which is closed by a plunger, and with the outer air.

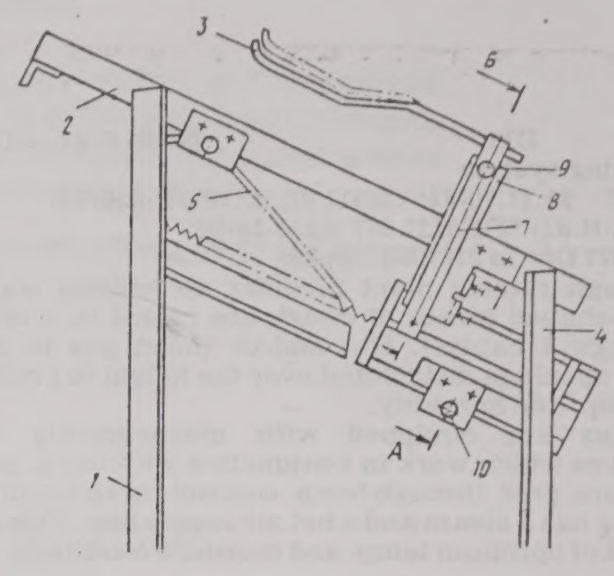
Used to dispense accurate quantities of dough under conditions which ensure the maintenance of the original cell structure. The machine sucks down only a small vol. of dough, at a relatively slow speed through a large opening.

KIFO= ★ D11 09067 D/06 ★SU-738-572
Bread baking oven - has electrical U/shaped tubular heaters which push through slots in drum surface
KIEV FOOD IND TECHN 19.12.77-SU-557359
X25 (05.06.80) A21b-01/22
19.12.77 as 557359 (4pp29)
Bread baking oven heating element, can be used with ovens having vertical closed conveyors, for heating both mesh and plate bases in electrically-heated tunnel ovens. The oven has conveyor belt over shaft and tensioning arm, with part where the dough blanks are, having frame on which U-shaped tubular electric heaters are mounted. Heating is made more effective by cutting slots on the outer surface of the drum at right angles to its axis, with the elements positioned in the slots. Their ends are placed in guides for the moving oven base and the frame is made to reciprocate and is rigidly connected to the supports of the shaft. Bul. 21/5.6.80.



UFOO= ★ D11 09224 D/06 ★SU-738-955
Bread loaf conveyor and distributor - includes fabric apron spread above loaf discharging gates, at entrance to chute in order to prevent loaf from falling and damage
UKR FOOD SUPP EQUIP 31.01.78-SU-575702
Q31 (05.06.80) B65b-35/40
31.01.78 as 575702
The objects such as bread loafs are conveyed and distributed to the discharge chutes without damage due to the gates.The conveyor is followed by row forming mechanism and the mechanism for transferring the row to the group.The transmitters count the loafs and the mechanism discharge them to chutes.Bul.21/5.6.80.

GFOO= ★ D11 09225 D/06 ★SU-738-957
Dough blanks orienter - has sloping trougb with rotatable lid actuated by probe as article passes underneath
GEOR FOOD IND RES 02.12.77-SU-549385
Q31 (15.06.80) A21c-09/08 B65b-35/58
02.12.77 as 549385 (3pp29)
Orientation device for bread rolls during baking, has trough, probe fixed above it' and mechanism to rotate the dough articles.Orientation reliability is increased by sloping the trough and providing it witb holes. Tbe articles rotator is a containe rotating lid intended to close over the holes in the trough.The is bent over to the profile of the upper crust of the rolls and m cantilever-type along the axis of the trough by arms witb br and at the exit end, and interacting with the lid.Bul.21/5.6.80.

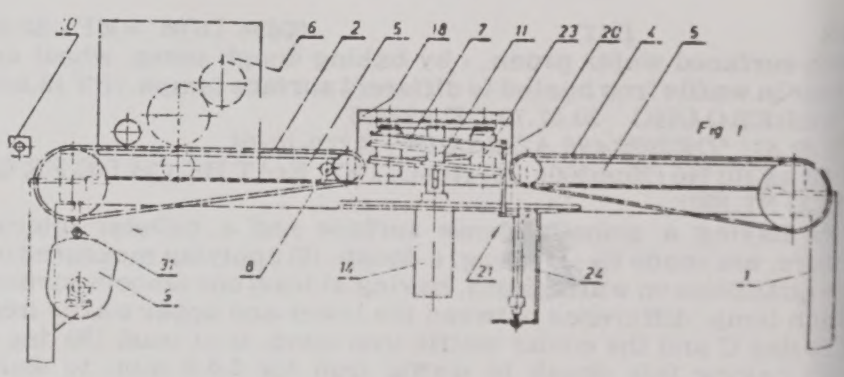


BLAC- ★ D11 09471 D/06 ★US 424
Tunnel oven heated by IR panels - controlled by thermocou which sense temp. at spaced intervals along tunnel
BLACK BODY CORP 01.11.78-US-956869
X27 Q77 (20.01.81) A21b-01 F27d-11
01.11.78 as 956869 (15pp295)
Tunnel oven includes a conveyor for carrying prods. through oven via a permanently open inlet and outlet. The floor of the ov formed by a heat conductive hearth. Electronically energis infrared heating panels extend along the length of the hearth. Te sensing elements are positioned at spaced intervals along the he and are in intimate thermal contact with the hearth. These elem control the panels which are responsive to the mean of the se temps. The elements each comprise a long thin probe which enga a guide within the hearth, the probes being urged into each guid have a good thermal contact with the hearth.

The tunnel oven is used for heating food and may includ conveyor with its return course coplanar with its course within oven. Alternatively the conveyor may be of the type with its re course beneath the oven.

HAAS/ D11 71078 A/40 = US 4246
Cream wafer stacking machine - with contra-rotating spirals rai cream coated wafers against underside of preceding wafer
HAAS F 25.03.77-AT-002098
*(20.01.81) *DE2809-642 A21d-13 + A23g-03*
14.03.78 as 886402 (9pp1376)
Waffle block is mfd. by coating individual sheets on one side w cream, and lifting the sheets using oppositely mounted upri spiral feeders which grip the sheets and guide them upwar against each other to form the block. The feeders push the comple blocks onto a run-off belt.

Waffle blocks can be produced at a high rate.



D12: MEAT; FISH PROCESSING

PENN/ ★ D12 07839 D/06 ★CA 1092-306
Power driven fish scaler - with elongate scaling elements extending between spaced anchors secured to spindle
PENNER N 18.12.78-CA-318164
(30.12.80) A22c-25/02
18.12.78 as 318164 (18pp295)

A fish scaler comprises a rotatable drive spindle with a pai spaced apart anchors secured to it. Scaling elements extend betw the anchors and are arranged as a cylinder. An adjuster moves anchor lengthwise relative to the spindle to thus control the tens in the scaling elements.

ling elements may consist of either blades or wires which through apertures in the anchors. The elements are parallel to each other and may either be parallel to the may be twisted relative to it.
ler does not tend to tear the fish flesh.

D12 07859 D/06 ★DE 2925-821
g fresh meat in fresh condition - by coating with viscous ontg. salt, dextrose, malto-dextrin and citric acid
L W 27.06.79-DE-925821
81) A23b-04/10
s 925821 (8pp200)
eat can be preserved in pre-rigor mortis condition after by immersion, with a thin layer of a highly viscous soln. l water, 3.6kg NaCl, 0.6 kg dextrose, 12.1 kg maltodextrin acid to pH 3.5.
eat can be kept several-, e.g. 4-6days, at high ambient e.g. over 40 deg C. Coating can retard bacterial and/or ic decomposition, as detected by gamma-aminobutyric acid on, from 2nd to 6th day. The immersion soln. is stable for at onths.

★ D12 07865 D/06 ★DE 2926-349
atment chamber - with roller chains feeding belt conveyor in tions for continuous turning of articles (AT 15.7.80)
T IND RES INST 05.06.79-AT-004048 (29.06.79-DE-926349)
Q76 + P36 (29.01.81) A22c-11 A63l-03/18 B65g-49 F26b-15/18
as 926349 (14pp39)
or the heat treatment of cylindrical articles, specially of s, consists of an endless belt conveyor which takes the through the treatment chamber, equipped with e.g. infrared rs. Within this chamber, the belt is gripped at both selvedges rs on a pair of endless chain drives, one above the belt and w which are staggered and deform the belt into a wavy strip. conveyor and the chains are driven by separate motors and ent speeds.
ifferential speed causes the sausages which rest in the tions to be constantly turned so that they are heat treated ly on all sides. Articles of different diameters can be treated treatment causes no deformation.

★ D12 07872 D/06 ★DE 2927-507
stunning gun - with rubber buffer for quick shot bolt on
NER K 07.07.79-DE-927507
(29.01.81) A22b-03/02 B25c-01/14
as 927507 (14pp39)
stunning gun for use in abattoirs consists of a barrel with a ich is driven forward by the firing of a cartridge. The piston olt hits against a thrust bush and thrust plate at the forward he barrel. This compresses a flexible rubber bush, held in an of larger inside dia (at least 20%) than the outside dia of the plines on the outside of the thrust bush ensure a damped

olt from the skull of the animals is extracted so that neither rator nor the gun can suffer damage. Heat and noise, created shots, have been reduced. The rubber rubbers last for 12000 ithout visible wear.

D12 43635 Q/00 =DS 1930-887
en-encased sausage
LEVER NV 18.06.68-GB-028919
*(29.01.81) *NL6909-339 + A22c-11*
9 as 930887 (12pp39)
d of continuous extrusion of food in an edible sheath, specially sages in a continuous skin, is based on inner and outer tric parts of the extrusion nozzle which form an annular gap evolve in opposite directions. The sheath is formed of a able dough, made of steeped collagen fibres.
ight from the extrusion nozzle, the strand enters a coagulant dening bath and it is dried, for example in a strong air stream, sence of the salt adhering from the bath. The contrarotation of zzles produces friction which stabilises the collagen sheath rmits a low-cost application of thin skins.(DS)

/ D12 00133 Y/01 =DS 2524-628
pickling machine conveyor - with endless chains joined by ars and fitted with serrated links
BNER M 03.06.75-DE-524628
*Q35 (29.01.81) *DE2524-628 + B65g-17/08*
5 as 524628 (4pp39)
port device to convey lumps of meat through a brine injection ne is an endless chain which passes over a sliding plate. The utside chains consist of links which have in the centre a triagnular ridge or slope towards both ends and are joined by long pins. The pins are linked to each other with similar links, offset from one line to the next, i.e. not forming a continuous chain.
The transport chain can be produced easily and at low cost. It is easy to clean and can radius.(DS)

AIRL D12 72534 X/39 =DS 2608-815
Poultry cooling tunnel - with endless conveyor and automatic carbon dioxide snow injection into cavity through needles BE060976)
AIR LIQUIDE L' 05.03.75-FR-006892
*Q75 (29.01.81) *DE2608-815 F25d-03/12*
04.03.76 as 608815 (10pp39)
Freezing plant for drawn poultry includes a heat insulated cooling tunnel with a loading and an unloading opening and an endless conveyor with hollow carrier needles. The carcasses are pushed on over a carrier needle, and a reciprocating injection needle enters and squirts a low temp. fluid inside the drawn cavity.
The pref. low-temperature fluid is liquid carbon dioxide under pressure which is stored in a cylinder near the tunnel. This system eliminates the undesirable dewatering which is caused by low-temperature air blast cooling. The resulting snow is retained inside the poultry and the gas is allowed to escape.(DS)

MAYC D12 27192 Y/16 =DS 2659-006
Mfg. chopped morsels of low fat cooked bacon - of controlled fat content, colour and morsel size
MAYER O & CO INC 29.12.75-US-645315
*(29.01.81) *BE-849-238 A23l-01/31*
27.12.76 as 659006 (7pp68)
Animal adipose tissue is comminuted into particles of dia. 1.6-25 mm., warmed to 100-121 deg.C and then centrifuged to reduce the fat content to 5-40 wt.%. Pref. the fatty material, at below 4.4 deg.C is forced through a plate with holes of dia. 9.5 mm. the comminuted material is heated to 104-105 deg.C in 27-31 minutes and then centrifuged to an end fat content of 17.5-22.5 wt.%.
De-fatted material may be comminuted, mixed with flavouring and packed.(DS)

SPOT/ ★ D12 08154 D/06 ★EP --23-044
Flexible parting tool - made of cutting prisms integral with or moulded to plastic string
SPOTZL M 23.07.79-DE-929836
A88 P54 P63 (28.01.81) B23d-61/18 B27b-33/16
21.07.80 as 104285 (14pp39) (G) DE2400205 CH-510505 DE2613141 E(BE FR NL)
A flexible parting tool in the shape of a strand, for cutting otherwise inaccessible parts, especially to separate bones from carcasses, consists of a continuous string to which prismatic or serrated cutting elements are attached. Pref. the flexible string is of an aromatic polyamide and the cutting elements are esp. of ABS..
The parting tool has adequate strength and cracks less easily than spring steel wire.

ANVR ★ D12 08228 D/06 ★FR 2453-605
extracting sinew from meat - by pulling hard on detached sinew root while meat is held stationary
AGENCE NAT VALORISATION 09.04.79-FR-009566
(12.12.80) A22c-17
09.04.79 as 009566 (17pp448)
The root of each sinew is cut free of the meat and gripped between clamping jaws which can grip the sinew with a force of about 300 kgf without cutting the sinew. The meat is held stationary while the jaws are displaced to exert a longitudinal pull of about 600 kgf on the sinew. The sinew, comprising main cord and branch fibres, is pulled cleanly out of the meat as the jaws move away.
To hold the meat as the sinew is extracted, it is pref. clamped resiliently between spring loaded dogs exerting a force of between 50 and 100 kgf. This force is pref. adjustable. The sinew-pulling jaws are pref. mounted in a mobile chassis which can be displaced away from the meat retaining dogs. Displacement can be by means of motor driven rack and pinion gear, hydraulic cylinders etc.
Used for removal of sinews with all branch fibres from large pieces of meat, partic. from shoulders of beef. The sinews are removed without a lengthy and skilled cutting operation.

UNIC D12 45823 A/26 =GB 1583-789
Tubular wrapper for food prods. esp. sausages - with heat fused edge of thermoplastic layer
UNION CARBIDE CORP 23.12.76-US-753818
*A92 + P73 Q34 Q67 (04.02.81) *BE-862-206 A22c-13*
22.12.77 as 053407 (10pp1376)
Tubular casing for foods consists of a flattened cellulosic tube having 2 edges, and cthermoplastic extruded coating bonded to the tube having seams displaced from the edges by no greater than 0.003 ins.

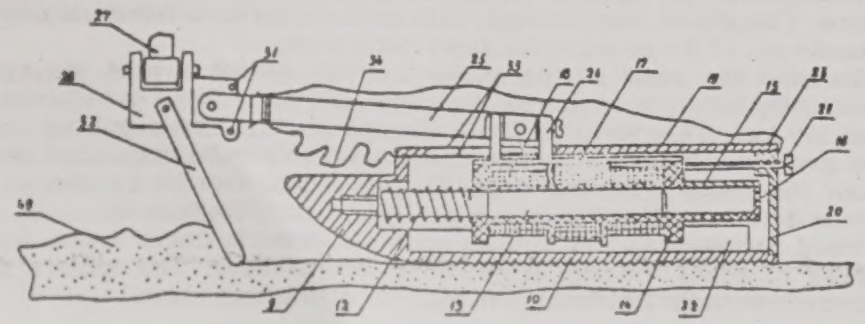
Pref. the casing is inverted so that the cellulosic tube forms the outer surface in use. The thermoplastic is pref. c polyolefin, voromer, polyamide, polyester, acrylonitrile, or vinyl polymer. Casing is impermeable, strong, and glossy.

UNIC D12 83304 Y/47 =GB 1584-011
Food stuffing device for skins - with bulbous rim on throat ring for adjustable contact area with skin (BE 14.11.77)
UNION CARBIDE CORP 14.05.76-US-686425
*Q31 (04.02.81) *DE2721-311 A22c-11/02*
13.05.77 as 020119 (7pp1376)
Stuffing appts. consists of a stuffing horn on which a shirred casing is supported, a sizing disc surrounding the horn to stretch the casing radially, and a snubbing ring downstream of the disc to contract the casing between itself and the horn.
The ring has an annular projection extending in the direction opposite to the casing movement which provides max and min contact with the casing when the spacing between the disc and ring is a min or max respectively. Stuffing size can be controlled.

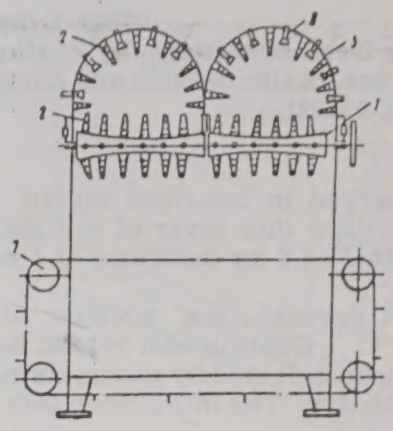
TAKE ★ D12 08438 D/06 ★J5 5153-552
Marine pasty food mfr. - by treating paste with coatable sorbic acid and coating ascorbic acid and/or sodium ascorbate
TAKEDA CHEMICAL IND KK 21.05.79-JP-062432
(29.11.80) A23b-04/12 A23l-01/32
21.05.79 as 062432 (5pp5)
Method comprises combining 0.05-0.2 w/w% (as sorbic acid on finished pasty meat) of coating sorbic acid and 0.02-0.2 w/w% (as ascorbic acid on finished pasty meat) of coating ascorbic acid and/or sodium ascorbate, in fish meat material. Coating sorbic acid is prepd. using 0.8-3 pt. wt. coating material per pt. wt. of sorbic acid.
By using coating ascorbic acid and/or sodium ascorbate together with coating sorbic acid prior art problems or smell, taste, etc. are solved and also dried bonito-like taste and flavour can be given to the marine pasty food.

ENGS/ ★ D12 D/06 ★SE 7904-951
Thin plate for collecting fish scales - is bent around knife blade to which a one-sided fixture attaches
ENGSTROM O 07.06.79-SE-004951
(19.01.81) A22c-25/02
07.06.79 004951 (1pp1161)
The tool is for collecting fish scales, and is used in conjunction with a scaling knife. It comprises a thin plate, suitably shaped to bend around the knife blade to which it is attached by a fixture on one side.

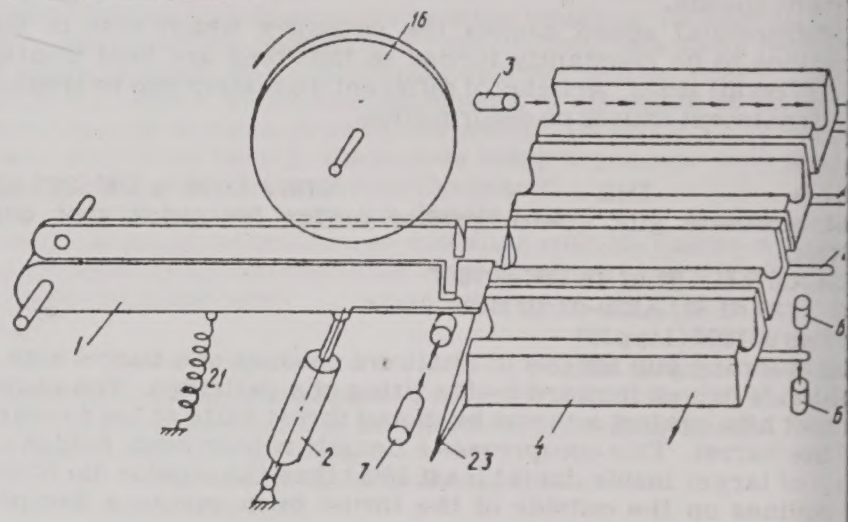
MOMD ★ D12 09057 D/06 ★SU-737-832
Food produce e.g. sausage meat, flowline grinding appts. - has equalising unit to spread the meat and joined by lever to measuring converter with pneumatic damper
MOSCOW MEAT DAIRY INST 09.02.78-SU-578536
S03 X25 (05.06.80) G01n-33/12
09.02.78 as 578536 (5pp840)
Earlier appts. for ascertaining the degree of grinding of food produce, e.g. meat, contains a measuring converter and a recorder. To optimise the degree of grinding, an equalising unit is joined by lever to a measuring converter with a coil and core forming a pneumatic damper, and the recorder consists of guides for a carriage with two plates. The new appts. is useful on a flowline for continuous prodn. of sausage products. Cutters are tripped out when the degree of grinding becomes optimal. Bul. 20/30.5.80.



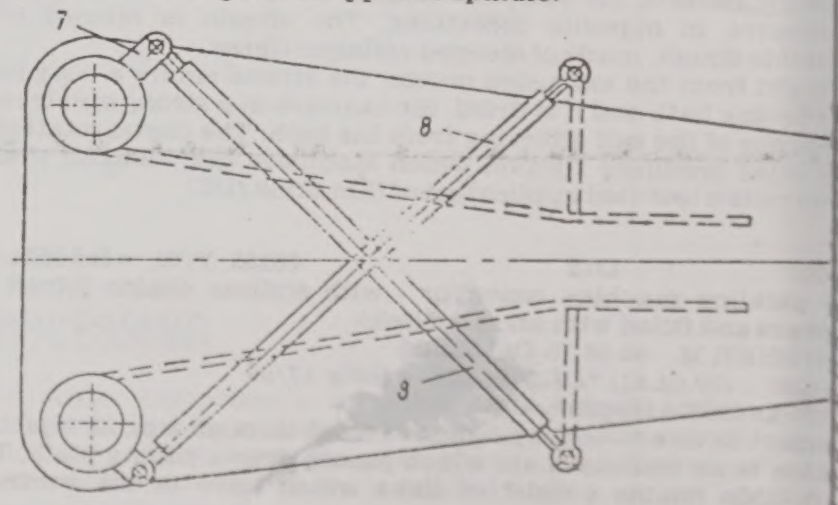
KOMP = ★ D12 09068 D/06 ★SU-738-573
Feather plucker for poultry carcasses - has rows of rollers in tunnels with fingers and hot water sprayers
KOMPLEKS POULTRY 08.12.77-SU-553492
(05.06.80) A22c-21/02
08.12.77 as 553492 (3pp29)
Equipment to remove feathers from poultry carcases, comprising horizontal rotaterbly-driven drums with working attachments, loading and unloading hoppers, and water sprayers. Scalding during feather removal is guaranteed with increased product putting the drums in consecutive rows. Above each row mounted with working attachments, having transverse se cross- section. This forms a tunnel through which the passes, with the sprayers attached inside the shells.



FARE = ★ D12 09069 D/06 ★SU
Fish dressing machine conveyor charging appts. - has convey cassettes fitted with sensors initiating filling from tray cassette is empty
FAR EAST POLY 18.07.77-SU-508774
T06 X25 (05.06.80) A22c-25/08
18.07.77 as 508774 (3pp840)
Earlier appts. for charging fish into a fish-dressing m includes a conveyor with cassettes and a swinging spring-m tray with a drive. For greater productivity, Fish Present sens fitted in the cassettes and tray along with a clock sensor an counter. Productivity is increased 30-50% per machine when f herrings into the machine. Cassettes without fish are discover filled. Bul. 21/5.6.80.



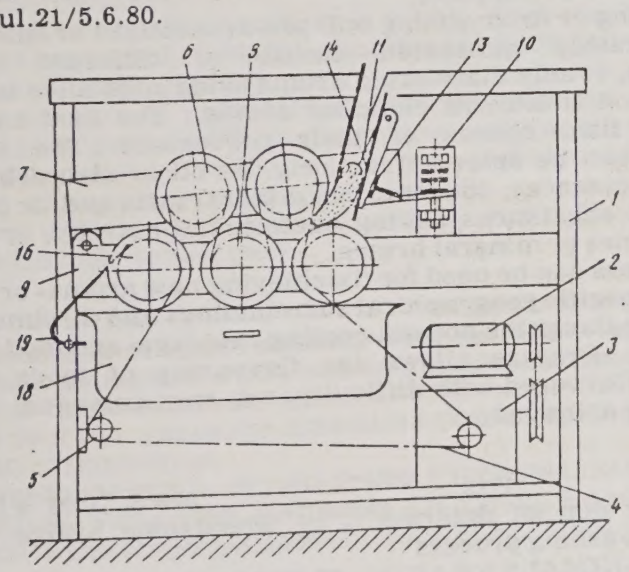
TEKH = ★ D12 09070 D/06 ★SU-7
Various length fish orienter - has two separable plates with be bushings linked by levers
TEKHRYBPROM 05.12.77-SU-550478
(05.06.80) A22c-25/12
05.12.77 as 550478 (3pp29)
Fish orienter, for use over a wide size range, has base and two converging at an angle, mounted with a gap above a base. Orie reliability is improved by fastening the plates to spindles so tha can be sepd. On each spindle is a pair of spring-loaded bushing contacting sides of which are bevelled. Each plate is ri connected to the upper bushing and via a system of levers and to the lower bushing on the opposite spindle.



= ★ D12 09071 D/06 ★SU-738-576
tic fish dressing machine working parts control appts. - has ectric length measurer with light pipe to monitor fouling of asurer
KHRYBPROM 04.03.76-SU-330143
X25 *(05.06.80) A22c-25/14*
as 330143 (6pp840)
for controlled adjustment of the working parts of an tic fish-dressing machine contains fish length measuring (photoelectric sensor) and a controlled actuator. A movement and adder are introduced for greater accuracy. The ring appts. is fitted with a light pipe and a sensor fouling r, and the drive of the actuator includes an electromagnet and r. The new drive is simpler and more reliable than the step used previously. Fouling of the sensor is signalled. Bul. 80.

= ★ D12 09072 D/06 ★SU-738-577
c processing machine - has conveyors and knives to cut open and water jets for cleaning
LTEKHRYBPROM 16.11.77-SU-544190
06.80) A22c-29/04
7 as 544190 (5pp29)
ment for processing e.g. cockles, comprising converging unit e carcases, mechanism to remove the crown, hydraulic n, conveying unit for the mantle plus disc knife to dissect the e, spreader and attachment for cleaning the abdominal space. y of the prepn. is improved by making the converging unit as a lt with fixing needles. The spreader is spring-loaded, has idal shape with slots on its lower surface for the fixing s. Directly behind the crown-removing mechanism is a disc to take off the pre-anal section. Magazines with funnels are o reorient the molluscs.

= ★ D12 09218 D/06 ★SU-738-905
to extract juices from spleen(s) - has controlled pressure s and slitting knife to handle various widths
T FISH FARM COLL 17.11.77-SU-546051
1 *(05.06.80) A22c-07 B30b-09/20*
7 as 546051 (3pp29)
to squeeze juice from food products, e.g. the spleens of fish rises rotating rollers with longitudinal channels, in a loading attacbment, waste remover and motor.Good quality s produced, by adding extra rollers, witb fre made of fixed and ble parts, linked on the side of the waste collector by a pivot. e other side of the frame is a regulating spring mechanism and astes receiver is made of rods. The rollers near the receiver ransverse grooves, with loading attacent equipped with knives ftable in the frame by a holder with one of the ends of the rods grooves which increase in width and depth towards the ends of llers.Bul.21/5.6.80.

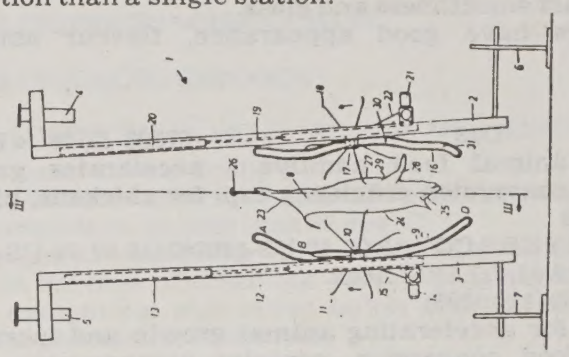


P- ★ D12 09442 D/06 ★US 4245-372
ring tail of poultry carcass suspended from conveyor - by ving tail in pivoting guide adjacent cutter disc
AMPBELL SOUP CO 22.01.79-US-005349
0.01.81) A22c-21
79 as 005349 (9pp295)
ry carcasses are suspended from shackles attached to an ead conveyor. The carcasses are moved through a tail-cutting n where the tail enters a slot in a guide plate. A rotary cutter is oned in the downstream end of the slot and severs the tail while arcass continues to advance.
e guide plate is pivotted and moves in response to carcasses of ent sizes to ensure that the tail is captured by the slot. In ion the guide is counterbalanced. Limit stops return the guide est position after each tail cutting operation.

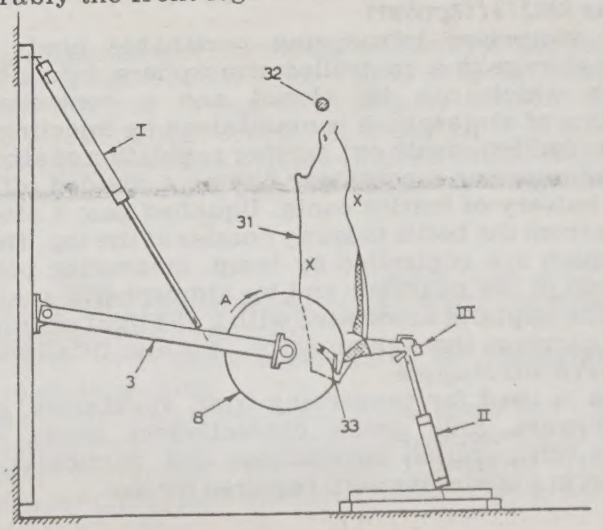
The apparatus removes the tails of poultry carcass irrespective of size variations. The guide provides positive positioning of the tail with respect to the knife.

CORO/ D12 00173 C/01 = US 4245-373
Chopped beef discs possessing high cohesion for roasting - are prepared from mixed lean and fat meat then firmly pressed
CORONEOS J H 19.06.78-US-917077
*P28 (20.01.81) *DE2918-253 A22c-07*
19.06.78 as 917077 (7pp1376)
Compressor for processed meat consists of a compression plate having a square central aperture and which fits inside a mould, and a guide collar centrally located on the exterior of the plate and having a square aperture aligned with that of the plate. The plate is moved by a lever mechanism having a fulcrum attached to the compressor base.
The mould is pref. an open ended cylinder which has a smaller dia at the top than the bottom. Pressed beef for cooking on a vertical rotisserie can be prepared.

SLAG- ★ D12 09709 D/06 ★WP 8100-039
Scraping pig carcass by rotating brushes - moved along guides following longitudinal carcass profile
SLAGTERIREGION SYD 27.06.79-DK-002711
(22.01.81) A22b-05/08
26.06.80 as DK0039 (14pp295) N(DE DK GB NL)
26.06.80 DK0039 (14pp292) (E) DK--46970 DK--55661 DK-130942 DE1432469 DE1507916 DE1962390 US3711895 N(DE DK GB NL)
A pig carcass is suspended from a conveyor and is temporarily halted while the carcass is in the first of a series of cleaning stations. The first station includes a pair of rotating brushes which are moved down the carcass while the brushes are supported by guide bars. The bars cause the brushes to follow a path which is similar to the profile of the carcass.
After scraping in the first station the carcass is advanced and is rotated through 90 degrees about its vertical suspension axis. The carcass then enters the second scraping station which is similar to the first except that the guide bars cause the brushes to follow the new profile of the carcass in its rotated position.
Scraping the pig carcass in two separate stations gives a more efficient action than a single station.



HAMJ- ★ D12 09710 D/06 ★WP 8100-040
Skinning sheep carcass with rotating pulling drum - moved along carcass by pivoting arm driven by hydraulic ram
HAMJERN AS(NORO/) 06.07.79-NO-002255
(22.01.81) A22b-05/16
04.07.80 as NO0022 (13pp295) (E) DE2131834 DE2326318 DE2421310 GB1055824 US3364516 US4021883 WP8007469 N(AU DE GB NL SE US) E(DE FR GB NL SE)
A sheep carcass is suspended by its hind legs and a winding drum is positioned near the head. A flap of skin is gripped by the drum which is then rotated to pull the skin from the carcass. While the drum is rotating it is gradually moved up along the dorsal side of the carcass. Preferably the front legs of the carcass are engaged by a



clamp after the drum has passed the shoulders and preferably the clamp pulls the front legs downwards to steady the carcass during the remainder of the skin removal..

KOLL/ D12 05850 D/05 = WP 8100-041
Sausage skin concertina closure - by machine with square shaft end twisting skin into braid and pushing it inside open end
KOLLROSS G 30.06.79-DE-926543
*Q31 (22.01.81) *DE2926-543 A22c-13/02*
27.06.80 as D00093 (28pp39) (G) FR2179915 FR1425014 DE2719717 US3162893 FR1470243 N(BR SU US)
Concertinas of long sausage skin which have been gathered for pushing over the filler tubes of sausage stuffing machines must be closed at the open end before filling begins. This is done by pu square shaft end into an open end and by revolving it after th has been withdrawn a short distance. This forms a twisted which is continued until the shaft is withdrawn and a plunger its bore pushes the braid inside the skin end..
Machine performs the operations automatically, produc perfect seal without any risk of damage to the sausage skin.

See Also
D13 DE 2928680

D13: OTHER FOODSTUFFS

LIFE-★ D13 07786 D/06 ★BE -884-317
Articles with sugar-free coating - comprising crystalline sweet-tasting hygroscopic material
LIFE SAVERS INC 15.07.80-BE-884317
A97 B07 (15.01.81) A23g A61k
15.07.80 as 884317 (18pp367)
Coated alimentary articles (esp. chewing gum, sweets or pharmaceutical pills or tablets) comprises a core coated with a sugar-free compsn comprising a sweet-tasting hygroscopic material in crystallised form.
The coating pref. comprises sorbitol, mannitol or a hydrogenated starch hydrolysate together with film formers, binders, anti-adhesion agents and dispersants. Prefd. compsns. container 45-90 wt.% sorbitol, opt. together with mannitol. Suitable film formers are gelatin and cellulose derivs. Suitable binders are gum arabic, xanthan gum, tragacanth gum, tapioca dextrin and modified starch. Suitable anti-adhesion, agents are CaCO3, talc and Mg trisilicate. The prefd. dispersant is TiO2.
The articles are pref. produced by (a) coating the core with the coating compsn. in the form of a syrup, (b) applying more of the coating compsn. in powder form, and (c) opt. repeating steps (a) and (b) until the required thickness obtd. A final coating of syrup can be applied to impart smoothness and gloss.
The coatings have good appearance, flavour and chewing qualities.

BRIM ★ D13 07803 D/06 ★BE -884-399
Amphomycin animal feed additive - accelerates growth and improves food conversion efficiency esp. for chickens, pigs, cattle, sheep and goats
BRISTOL MYERS CO 12.06.80-US-156787 (19.07.79-US-059011)
B04 C03 (19.01.81) A23k A61k
18.07.80 as 884399 (12pp395)
Food compsn. for accelerating animal growth and increasing the efficiency of food conversion, contains amphomycin. Pref. the amphomycin is used in concns. of 4-100 g, esp. 4-12g, per ton of food.
Used in accelerating animal growth and improving food conversion. The compsn. may be used to feed chickens, pigs, cattle, turkeys, geese, ducks, horses, goats, rabbits and sheep. It is useful for chickens, pigs, cattle, sheep and goats. The amphomycin inhibits methane formation and increases propionate production with without significantly inhibiting cellulose digestio.

FEIL/ ★ D13 07832 D/06 ★BE -885-314
Preserving perishable prods. esp. foods - using container with liquefied gas injection
FEILER H 21.09.79-AT-006222
(16.01.81) A23b
19.09.80 as 885314 (13pp597)
Process comprises introducing perishable prods. opt. after a previous storage in a controlled atmosphere, into a totally isolated container which can be closed and a controlled temp. and constitution of atmosphere is maintained by injecting liquefied gas. Storage is continuedwith opt. further regulation of atmosphere.
Appts. comprises a container having a divided off compartment contg. a battery of bottles contg. liquefied gas; a storage chamber has leads from the bottls to spray nozzles at the top. The nozzles have values which are controlled by temp. measuring points at the top and bottom of the chamber and by atmospheric analysis means at the top. The appts. is associated with a gas tight chamber which is opt. on a carriage through an entry. It is also fitted with gas bottles, sprays and control appts.
Process is used for preserving fruit, vegetables, poultry, meat, plants, flowers, milk prods. confectionery prods. etc. It avoids expensive refrigeration installations and particular foods may be kept intact in a container until required for use.

BOBB/ ★ D13 D/06 ★BR 79
Prepn. of amidated pectins
BOBBIO F O 11.07.79-BR-004392
(13.01.81) C08b-37/06

SAND/ ★ D13 07844 D/06 ★CA 109
Brewing of hot beverages - in which roasting grinding and ste occurs in sealed vessel, to prevent escape of aromas
SANDOR S D 18.04.80-CA-349603
X27 (30.12.80) A23f-01/02 A23n-09
18.04.80 as 349603 (30pp295)
In the making of a beverage, the basic raw material is roa ground and wet in a single vessel. This ensures that most o aromas and fragrances released during roasting and grinding in a container which surrounds the basket where the va processes are carried out. The beverage is collected in the conta
The roasting may be effected by gas or electric heating. Pref grinding is effected by high speed rotation of a blade which ca rotated at slower speeds during the roasting process for ge agitation to ensure uniform roasting.
The appts. is particularly used for brewing coffee but may als used to make other hot beverages e.g. onion soup. The me retains all the aromas released during the roasting and grinding.

HERT-★ D13 07933 D/06 ★DE 292
Flavouring and aromatising food esp. meat and sausages introducing aromatising substance, e.g. as spray, into treatm chamber atmos.
HERTA K SCHWEISF KG 16.07.79-DE-928680
(D12) (29.01.81) A23b-04/04 A23c-09/14 A23l-01/22
16.07.79 as 928680 (16pp200)
In flavouring or aromatising opt. pre-aromatised or spiced food adding freshly generated smoke of different aromati substances, evenly distributed aromatising substance is introdu into the food treatment chamber atmos. The food can be m sausages, fish, cheese or their precursors. The aromatis substance can be spice extract, e.g. as oil or oleoresin, synth aromas or essences, condensates, mineral salts and/or mineral solns., esp. substances having bactericidal activity, or sea-wa sea-salt brines or mineral brines.
The process can be used for (i)achieving new aroma- or taste no typical of specific geographical surroundings and (ii) simultaneou deodorising slaughter-houses, cooling-, storage- and food-process chambers. Process allows the flavouring of foods which externally flavoured with difficulty, e.g. raw sausages. New tas notes can be achieved.

FARM = ★ D13 07958 D/06 ★DE 2929-
Pasteuriser deposit determn. - by wheatstone bridge controll automatic washing process
FARM ANIMALS REARIN 23.07.79-DE-929823
S02 T06 X25 (29.01.81) A23c-03/02 A23l-01 G01b-07/06 G01d-21
23.07.79 as 929823 (54pp39)
A plate pasteurization and cooling plant for liquids such as m includes a heat exchanger block, consisting of a pasteurisat section, a recuperation section, and a cooling section. The amt. milk deposited on the heat exchanger plates of the first two sectio determined by a balanced Wheatstone bridge which responds to t resistance changes, caused by the growing deposits.
This does not necessitate a shut-down of the plant like the meth of weighing a heat exchanger plate before and after.

D13 08053 D/06 ★DE 3026-408
r antibiotic e.g. lasalocid zinc complexes - with animal promoter, coccidiostatic and cardiovascular stimulant

MINERALS & CHEM CORP 11.04.80-US-139598 (11.07.79-6643)
01 (29.01.81) A23k-01/17 A61k-31/71 C07d-407/04 C07d-0 C07h-17/04 C12p-19/44
s 026408 (83pp280)
complexes are of polyether antibiotics of molecular weight the antibiotic being a linear monovalent polyether; a non--contg. divalent polyether; a non glycolic monovalent r; a mono-nitrogen-contg. divalent pyrrole ether; a poly--contg. divalent pyrrole ether; a glycolic monovalent coside polyether; ionomycin; aabomycin; disnerycin; in; BL-580; K-41; SF-1195; M-4164A; A-32887; 30504RP; 38986; 433; 47434; or 427224.
complexes are useful as growth gromotants and/or stats in animals such as cattle, sheep, pigs and poultry, for urpose they may be administered in the feed or in feed s, or as omplants. The complexes can also be used to e cardiovascular function; they can be used for treating rs such as heart failure, septic shock states and congestive ilure.

★ D13 D/06 ★DK 7902-077
l and plant for introducing gas into liquid
OLFSSON R F R 21.05.79-DK-002077
(05.01.81) A23l

D13 40711 S/24 = DS 2055-287
rated potato prodn
ERICAN POTATO CO (AMP) 10.11.69-US-875180
*01.81) *DE2055-287 A23l-01/21*
0 as 055287 (3pp068)
glomerate of dehydrated potato particles with improved g qualities is prepd. Dehydrated potato particles are ned with water to a water content of 30-55 wt.%, the resulting mixed with 0.01-1 wt.% pepper and/or oregano, the mass ed to a loose agglomerate and then dried. The moistened es are pref. also mixed with 2-10 wt.% skimmed milk powder, vegetable oil, 0.01-0.2 wt.% butter flavour and 1-5 wt.% salt extrusion.(DS)

D13 39733 T/25 = DS 2156-585
e product - from soya bean milk contg added fat
NG KONG SOYA BEAN (HON) 01.12.70-US-094205
*01.81) *NL7116-519 A23c-19/09*
1 as 156585 (4pp1411)
table, soft-cheese-like product is prepd. from soy-bean milk g a solids content of 1-10% by admixture of 1-10% edible fat and skimmed milk powder, pref. 2% fat and 0.5-1.5% milk r. The mixture is pasteurised, homogenised and cooled. A lating agent, pref. CaCl2, lactic acid or lactic acid bacteria, is , the mixture heated to 60-70 deg.C, then cooled and dewatered e a curd with a moisture content of 60-80%.
product withstands re-heating without demulsification, and packed in heat-sealed packs.

/ ★ D13 08075 D/06 ★EP --22-881
erated pulping of lignocellulosic fibre material - using nitric oln. contg. aluminium cpd., with opt. alkaline extraction
IOR E S 19.07.79-EP-102553
7 C03 F09 (C04) (28.01.81) A23k-01/12 C08h-05 D21b-01/38 D21c-D21c-03/16 D21h-03/18
79 as 102553 (67pp091) (E) SU-214306 FR2333892 DS-546104 DS- DS-307087 FR1479952 US4053645 DS-727152 FR1486491 CH- LU--73770 DS-278492 US1933445 1.Jnl.Ref E(AT BE DE FR GB SE)
us lignocellulosic material is treated to form defibred pulp by merging it in or spraying it with aq. 0.15-9.0 wt.% HNO3 contg. cpd. (pref. Al2(SO4)3) in amt. at least 0.01 pts.wt. Al ions per 10 NO3, to nitrate ligneous component; (b) draining the material acid; and (c) directly mechanicaly defibering, or (c') treating lkaline extraction liquor to dissolve ligneous component, sepg. and opt. recombining with (part of) lignin-contg. extraction .
grassy material, nitrate salts, e.g. NaNO3, KNO3 or NH4NO3, e used instead of HNO3..
pulp can be used to produce animal feed of improved tability, building board, packaging board or paper. Extracted us component is useful (I) combined with neutralised urea and led rosin size as extender, (II) combined with starch for water lance or sizing, (III) as extender mixed with e.g. melamine or lic resin, (IV) as fertiliser, (V) to promote chemical retention and hygroscopic properties of quick draining soil, opt. mixed with diatomaceous earth, and (VI) for addn. to paper-making fibre.

DIAS ★ D13 08099 D/06 ★EP --22-947
Prodn. of acid cheese curd - using acid salt as acidifier and opt. acidogen
DIAMOND SHAMROCK CORP 02.07.79-US-053921
(28.01.81) A23c-19/05
27.06.80 as 103660 (32pp367) (E) US4053643 US4066791 FR2038319 US3620768 FR2190370 US3882250 DS-943632 1.Jnl.Ref E(BE CH DE FR GB LI NL SE)
Prodn. of acid cheese curd suitable for mfr. of cottage cheese, baker's cheese, quark cheese, cream cheese and Neufchatel cheese comprises (a) vigorously agitating milk at 32-95 deg. F while adding sufficient acid salt (I) to adjust the pH to 4.8-5.5 without coagulation, (b) adjusting the temp. to 75-95 deg. F, (c) keeping the acidified milk at 75-95 deg. F while adding 0-0.8 wt. % of an acidogen and 0.01-0.05 wt. % of a proteolytic enzyme, and (d) allowing the mixt. to stand at 75-95 deg. F for 30-240 min.
In alternative processes, (i) the acidogen is added in step (a) instead of step (c) or (ii) step (a) is carried out in unspecified manner or using a food-grade free acid, and (I) is used as the acidogen in step (c)..
Acid salts have less tendency to cause casein pptn. than free acids.

PROC ★ D13 08165 D/06 ★EP --23-062
Hard butter fats low in asymmetric tri:glyceride(s) - useful as cocoa butter substitutes, esp. for chocolate mfr.
PROCTER & GAMBLE CO 18.07.79-US-058713
(28.01.81) A23d-05 A23g-01
09.07.80 as 200668 (31pp367) (E) US--28737 US3410881 FR2300795 GB1390936 GB1252224 FR2225096 FR2178146 1.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)
Hard butter fat compsns. comprise (a) 75-99 (esp. 90-99) wt.% of symmetric triglycerides of the type

RCOOCH2-CH(OCOR1)-CH2OCOR2

and (b) less than 13 (esp. less than 5) wt.% of symmetric triglycerides of the type

RCOOCH2-CH(OOCR1)-CH2OOCR1 or

RCOOCH2-CH(OOCR)-CH2OOCR1

(RCOOH and R2COOH are 16C or 18C satd. fatty acids and R1COOH is an 18C cis-unsatd. fatty acid).
The compsns. have stearic to palmitic acid ratio 1.2-2:1 (pref. 1.4-1.8:1) and complete m.pt. less than 37 deg. C..
The compsns. are useful as partial or total substitutes for cocoa butter, e.g. in the mfr. of chocolate with varying hardness. They are completely compatible with cocoa butter and can be used without any change in processing conditions.

UNIL ★ D13 08205 D/06 ★EP --23-150
Ice-cream products including fat-based coating - comprising chocolate-type material based on specified fat compsn.
UNILEVER LTD 20.07.79-GB-025447 (20.07.79-GB-025402)
(28.01.81) A23d-05 A23g-09/02
21.07.80 as 302465 (+20.7.79-GB-025447) (31pp367) (E) US3333968 GB1488305 FR1459649 FR2121601 US3307953 FR1414086 US3099564 CH-459733 GB1102944 GB-978086 FR1547899 US4086370 GB1316079 FR1374072 FR2204361 GB-947672 BE-623770 GB1017480 E(AT BE CH DE FR GB IT LI LU NL SE)
Composite frozen confections comprise an ice confection (esp. ice-cream) in contact with a layer of fat-based confectionery compsn. (I), e.g. in the form of coated bars or ice-cream in a coated wafer cone.
(I) comprises a suspension of flavouring and sweetening solids in a fat base having (a) solids content index (%) 70-93 (pref. 75-90) at -20 deg. C, 65-93 (pref. 75-85) at -10 deg. C, 55-90 (pref. 65-75) at 0 deg. C, 15-40 at 20 deg. C, 0-12 at 30 deg. C, and 0 at 40 deg. C; (b) slip m.pt. 23-32 deg. C; and (c) brittleness time at least 45 (pref. at least 60) sec..
Coatings obtained using (I) are non-brittle and have a good flavour and mouth-feel.

UNIL ★ D13 08206 D/06 ★EP --23-151
Ice-cream products with coated wafer cone - contg. chocolate-type coating based on specified fat compsn.
UNILEVER LTD 21.07.80-EP-302466 (20.07.79-GB-025375)
(28.01.81) A23d-05 A23g-09/02
21.07.80 as 302466 (+20.7.79(2)-GB-025401/2) (37pp367) (E) US3333968 GB1488305 FR1459649 FR2121601 US3307953 FR1414086 US3099564 CH-459733 GB1102944 GB-978086 FR1547899 US4086370 GB1316079 FR1374072 FR2204361 GB-947672 BE-623770 GB1017480 E(AT BE CH DE FR GB IT LI LU NL SE)

Composite frozen confections comprise an ice confection (esp. ice-cream) in contact with a layer of fat-based confectionery compsn. (I), e.g. separating the ice confection from a dry edible confection (esp. a wafer cone).

(I) comprises a suspension of flavouring and sweetening solids in a fat base having (a) solids content index (%) 70-93 (pref. 75-90) at -20 deg. C, 65-93 (pref. 75-85) at -10 deg. C, 55-90 (pref. 65-75) at 0 deg. C, 15-40 at 20 deg. C, 0-12 at 30 deg. C, and 0 at 40 deg. C; (b) a slip m.pt. 25-45 (e.g. 25-36) deg. C; (c) viscosity at least 35 (e.g. at least 40) cP at 40 deg. C and shear rate 100 reciprocal sec.;(d) Casson plastic viscosity at least 30 (e.g. at least 33) cP at 40 deg. C; and (e) coating pliability parameter at least 3..

Compsns. of type (I) have good water-impermeability and are non-brittle, so that the frozen confections can be stored for long periods without penetration of moisture from the ice-cream into the wafer cone.

UNIL ★ D13 08207 D/06 ★EP --23-152
Prodn. of ice-cream products with coated wafer cone - by spray-coating with fat-contg. material
UNILEVER LTD 21.07.80-EP-302467 (20.07.79-GB-025374)
(28.01.81) A23d-05 A23g-09/02
21.07.80 as 302467 (+20.7.79(3)-GB-025375, 025401/2) (34pp367) (E) GB1488305 US3307953 US3333968 CH-459733 FR1459649 GB1102944 FR2121601 FR1414086 US3099564 BE-623770 US2925347 FR1547899 US4086370 GB1316079 FR1374072 FR2204361 GB-947672 GB-978086 GB1017480 E(AT BE CH DE FR GB IT LI LU NL SE)
Prodn. of composite edible products in which a dry edible material (esp. a baked wafer cone) is sepd. from direct contact with a water-contg. edible material (esp. ice-cream) by a water-impermeable edible fat-contg. layer is carried out by applying the fat-contg. layer as a spray from an atomising spray gun.

The fat-contg. material (I) has viscosity at least 10 poise at 46 deg. C and shear rate 3 reciprocal sec., viscosity at least 2.0 (pref. 2.0-3.6) poise at 46 deg. C and shear rate 100 reciprocal sec., and Casson plastic viscosity at least 1.2 (pref. 1.4-3.4) poise at 46 deg. C..

The products have a long shelf-life.

BALS/ ★ D13 08211 D/06 ★EP --23-161
Coagulated animal blood product - produced by heating with slow agitation
BALSSE C 29.04.80-FR-009664 (24.07.79-FR-019047)
B04 C03 L02 (C04) (28.01.81) A23k-01/04 C05f-01
16.05.80 as 400685 (53pp367) (F) FR2400328 US3291612 FR2374271 GB1204686 GB-938583 FR-592150 FR-496514 FR1442376 FR1382451 E(BE CH DE GB IT LI LU NL SE)
A new prod. is produced from animal blood (whole blood, serum or plasma) by slowly agitating the liq. blood while heating to boiling. The prod. has a slightly moist curd-like structure, practically free of liq. phase, in the form of an aggregate of millimetre-sized irregular modules, each comprising an agglomeration of spherical granules with a dia. of 1-5 microns..

The prod. can be (a) used to produce granular formulations contg. foodstuffs, food additives, pesticides, medicaments, fertilisers, etc.; (b) dried to produce an animal feed; (c) used to modify the properties of drilling muds, mortars, cements, refractory prods., etc.

NEST ★ D13 08229 D/06 ★FR 2453-607
Animal feed from coffee residues - by saponification, acidification and oxidn..
SOC PROD NESTLE SA 23.11.78-FR-033083
C03 (12.12.80) A23f-01 A23k-01/14
23.11.78 as 033083 (8pp520)
Coffee residues from the mfr. of instant coffee are treated by saponification, acidification to pH below 5, and opt. oxidn.

Used as animal feeds for ruminants, pigs, goats etc. Process eliminates esters of cafestol and of kahweol, and so the prod. may be fed to animals freely.

BRPE ★ D13 08274 D/06 ★GB 1583-751
Ruminant fodder prodn. from lignocellulose material - by treating with controlled amt. of alkali or acid
BP NUTRITION UK LTD 14.07.76-GB-029363 (29.03.76-GB-012512)
C03 (04.02.81) A23k-01/12
28.06.77 as ------ (4pp1251)
A ruminant fodder of improved digestibility is made by treating organic material contg. lignocellulose and varying amounts of moisture with acid or alkali. The amt. added is proportional to the dry matter content of the feed. The moisture content and the wt. of the feed are continuously monitored before entering the treatment zone.

Pref. the material is finely chopped before treatment with aq. alkali, and the treated material is then pelletised, and the pellets cooled.

Method is used to convert straw, bagasse etc. to fodder. By adjusting the amt. of alkali supplied, the need for a costly pr step is obviated and process flexibility is improved.

NEST D13 89955 A/50 = GB
Demineralisation of whey - by electrodialysis followed exchange (NL 27.11.78)
SOC PROD NESTLE SA 23.05.77-FR-015732
*(04.02.81) *DE2822-000 A23c-21*
02.05.78 as 017233 (9pp931)
Milk serum is demineralised by subjecting the clarifi skimmed serum to electrodialysis; then to ion exchange strong cation exchange resin in the H+ cycle, and a weal resin in the OH- cycle.

Pref. the milk serum used has been clarified by re particles of size more than 100 microns, skimmed to a residu content less than 0.05%, and contains 18-25 wt.% of dry mat Electrodialysis occurs at 10-20 deg.C under a current intensit 40 mol per sq.cm. of membrane, yielding a prod. demineral amt. 30-60 wt.% w.r.t. the starting material.

The milk serum obtd, after ion exchange has a deg demineralisation 90-98 wt.% w.r.t. the starting material, and i as a dietetic food prod. or baby food prod.

BACH/ D13 75924 Y/43 = GB 15
Heat treatment of food prod. esp. sterilising jam - by HF diel heating in open topped vessel with UHF irradiation overhead
BACH J 13.05.76-DE-621312
*X25 X26 (04.02.81) *BE-854-563 A23l-01/06*
13.05.77 as 020286 (-pp448)
Process is for industrial scale heat treatment, esp. sterilisi food prods. contg. water, partic, jams, marmalate etc. A prod. on fruit and/or berries is dielectrically heated in a container is permeable to an alternating electric field. The open-to container rests in an adjustable temp. bath of liq. of sui dielectric constant, partic. purified water, with the prod. top su lever slightly higher than the lever of liq. in the bath, e.g. by about 18 mm pref.by 6-10mm. The prod. is then subjected to an electromagnetic field from immersed electrodes on opposite sic the container and, simultaneously, to U.H.F irradiation of it surface by over head emitters, in accordance with US3974355.

The prod. is pref. marmalade, jam or jelly contg. sugar. frequency of the H.F. field should be low enough for penetrati extend right through the container.

Sugar-based jams, marmalades and jellies can be sterilise filling into small, aseptic pots.

QPPP ★ D13 08439 D/06 ★J5 518
Salad prepn. by admixing oil-in-water emulsion with solids - inc admixing glycine with citric acid
Q.P. CORP 21.05.79-JP-062532
(29.11.80) A23b-07/14 A23l-01/21
21.05.79 as 062532 (3pp5)
Salads are prepd. by mixing oil-in-water type emulsified food mayonnaise, salad dressing, etc.) and solid food (e.g. boiled po boiled carrot, etc.). Improvement comprises combining gly with citric acid. Salad with good storage stability is prepd. using substances.

By using citric acid together with glycine the preserva property of salads can be increased remarkably.

QPPP ★ D13 08440 D/06 ★J5 515
Storage stable salad prod. prepn. - by mixing emulsified and foodstuffs, oil mustard and sodium acetate
Q.P. CORP 21.05.79-JP-062533
(29.11.80) A23b-07/14 A23l-01/21
21.05.79 as 062533 (4pp5)
The method comprises mixing o/w-type emulsified food mayonnaise, salad dressing, etc) solid food(e.g. boiled potato, bo carrot, etc) oil mustard and sodium acetate.

By using sodium acetate together with oil mustard preservative property of salads can be increased. Usually mustard is added 5-50 ppm pref 10-30 ppm on the whole weight of salad. Sodium acetate is used 0.05-1.5 w/w% pref 0.2-1.0 w/w% the salad. When thus prepared salad is heat-sterilised, preservative property can be further improved.

FUKO ★ D13 08441 D/06 ★J5 5153
Ice cream contg. medium m.pt. fraction of palm oil - as low substitute for part of milk fat content
FUJI OIL KK 17.05.79-JP-061110
(29.11.80) A23g-09/02
17.05.79 as 061110 (4pp5)
In ice creams composed mainly of fat, non-fat milk solid, sweetn water and emulsion stabiliser, the fat is composed of 50-0 w/w% milk fat and 50-100 w/w% fat consisting of (1) 50-100 (50-80) w/w%

ium m.pt. fraction of the palm oil having tri-satd.-glyceride below 3.5 (below 2.5) w/w% and 2-unsatd.-1,3-di-satd.-de content above 60 (above 70) w/w% and (2) 50-0 (50-20) w/w% t.

cecream is similar in texture, and taste flavour to ice cream wholly with milk fat, but is less expensive. Pref. a small amt. r fat is used to provide good taste and flavour; animal and ble fat of m.pt. 20-40 deg.C, partic. laurin-type fat such as t oil, palm kernel oil or their hardened oil can be used. Pref. 75 w/w% of the 2-unsatd.-1,3-di-satd.-glyceride in the palm oil n is 2-oleo-1,3-dipalmitine.

★ D13 08442 D/06 ★J5 5153-571

ce prodn. - by steaming, adding calcium phosphate cpd. and rying

ZUKI Y 18.05.79-JP-061348

11.80) A231-01/10

9 as 061348 (2pp5)

ethod comprises (a) steaming rice to alphalise it and make its e pasty, (b) pouring a suspension of pentacalcium sphate or other calcium cpd. at 65 deg.C onto the alphaalised impregnate or adhering a proper amt. of the calcium cpd. in lised rice and (c) heat-drying it.

cious mutritive dry rice can be prepd. even from (very) old Further the dry rice is enriched with calcium and phosphate y adding calcium the dry rice is prevented from becoming and the nasty odour specific to (very) old rice can also be ed. Suitable, pentacalcium triphosphate (Ca5(PO4)3OH) and m cpd. are so added that phosphorus and calcium are ned in obtd. dry rice in weight ratio of 1:2.

★ D13 08714 D/06 ★J5 5154-909

ngal compsn. for protecting foodstuffs - comprises alloy r contg. silicon, aluminium and iron

OUE JAPAX RES INC 24.05.79-JP-063227

6 G04 (D22) (02.12.80) A01n-59/16

9 as 063227 (2pp22)

sn. comprises alloy powder contg. 1-10% Si, 1-10% Al and e Fe. The composition can eliminate oxygen of certain areas, us growth of fungi in this area can be inhibited. There may be r incorporated into the alloy other kinds of metal. Typically loy is crushed to powder having particle size of 1-100 microns, he resulting powder is packed into a bag made of gas-able sheet, and the package is placed in a wrapped bg of us kinds of foodstuffs. Oxygen in the bag is adsorbed into the osition to inhibit growth of fungi.

★ D13 08940 D/06 ★J8 1000-440

lipid sepn. - by treating with protease and lipase, decomposing sodium hydroxide and sepg. fractions

AIYO YUDEN KK 26.03.73-JP-034230

16) (08.01.81) C07f-09/10

73 as 034230 (2pp22)

is (i) treated with protease and lipase; (ii) partially decomposed sodium hydroxide heated; and neutral oil fraction, lipid fraction protein decomposed fraction are sepd. from one another. Yolk is recovered effectively. (J9118866)

E D13 24515 Y/14 = J8 1001-050

- milk substitute water-oil emulsions - used in making custard ings

SAHI DENKA KOGYO 18.08.75-JP-099937

*0.01.81) *J52025-058 A23c-11/02*

.75 as 099937 (5pp11)

r-oil emulsion is prepd. by mixing 6.0-15.0% oil and fat, 0.1-1.0% nulsifying agent, 16.0-40% non-fat solid material and 45-77.5% r. The emulsion is maintained for 10-60 mins. at 40-70 deg.C. and ulsified again under 30-150 Kg/cm2.

e non-fat solid material used is defatted milk powder and m salts selected from sodium polyphosphate sodium phosphate, sodium orthophosphate, sodium citrate, Na2CO3, , Na2SO4 and sodium caseinate. The ratio of Na to Ca in the sn. is 0.55-1.2. The emulsifying agent used is fatty ester of tan or fatty ester or sugar.

ed as a raw material in the prodn.of custard-pudding. Custard-ings are obtd. without stripy patterns. (J52025058)

V D13 93379 X/50 = J8 1001-051

ean protein and casein powder mixt. prodn. - by water extn. of defatted soybean, addn. of alkali metal (bi)carbonate to extract, ing, concentrating, and spray drying

ISSHIN OIL MILLS KK 19.04.75-JP-046973

*0.01.81) *J51123-865 A23c-11/08 A23l-01/20*

.75 as 046973 (3pp)

In a method for producing powder mixt. consisting of soybean protein and casein, soybean (or defatted soybean) is extracted with water. The obtd. soybean milk is heated. To the heated milk, alkali metal carbonate or bicarbonate and casein are added, and the pH of the mixt. is adjusted to 6.6-7.0. The mixt. suspension is then heated at 75-140 deg.C for several seconds - 30 minutes, and is conc. under reduced press. The conc. mixt. soln. is dried by a spray dryer. Thus the powder mixt. is obtd.

By the foaming action of the carbon dioxide formed by the reaction of casein and alkali metal carbonate (or bicarbonate), the mixt. suspension consisting of soybean milk and casein is bleached. The end prod. has good taste.(J51123865)

UNIL D13 05013 V/03 = J8 1001-056

Regeneration of denatured protein material - by forming a thermostable gel

UNILEVER NV 03.07.72-GB-031041

*A97 (10.01.81) *NL7309-172 A23j-03 A23l-01/32*

02.07.73 as 074673 (5pp)

Protein-contg. foodstuffs are made by mixing a protein component and a propyleneglycol ester of alginic acid at pH greater than 7 to give a water-insol. protein-alginate polymer in the form of a thermostable gel. The process is esp. useful for reconstitution of denatured fish protein which has been denatured e.g. by heating or by protein concentration of extraction processes. In a pref. case a mixt. of 17-25 wt.% dry powdered fish protein concentrate 0.6-2.0 wt.% alginic acid propylene glycol ester (made e.g. by esterifying at least 50% of the COOH gps. of alginic acid with 1,2-propylene oxide) and the remainder water (opt. also with salts, colouring, flavouring etc.) are mixed and the pH adjusted to 7.5-9.5 to form the gel; pref. the mixt. is extruded (e.g. as fibres, ribbons rods etc.) into an alkaline bath to form the solid gel.

The prods. may then be chopped and incorporated with normal filleted fish, e.g. in the prodn. of fish fingers. The process allows the processing of denatured protein and fish scraps into foodstuffs suitable for human consumption. (J49055869)

ASAH D13 84200 X/45 = J8 1001-058

Spirulina platensis and Spirulina maxima as bird feed additives - giving improved fertilisation rate and egg prodn.

ASAHI CARBON KK 11.03.75-JP-028603

*C03 (10.01.81) *J51107-967 A23k-01/18*

11.03.75 as 028603 (6pp)

To the feed of pet birds, 1-5 wt.% of spirulina are added as an additive agent. Spirulina consists of 30 genera. Spirulina employed as in this invention are Spirulina platensis and Spirulina maxima. These Spirulina can be cultivated industrially. The addn. processes are carried out by mixing, spraying or steeping. The additive accelerates the growth and sexual excitement of birds, whereby prodn. of eggs and rate of fertilisation are improved. (J51107967)

SAOC D13 46910 X/25 = J8 1001-059

Oil material for fish feed - comprises plant or animal oil combined with omega 3-unsatd. fatty acid

SANRAKU OCEAN (AJIN) 29.10.74-JP-123953

*C03 E17 (10.01.81) *J51051-492 + A23k-01/18*

29.10.74 as 123953 (4pp)

A fish feed having high nutrient value contains a plant oil (corn oil, soybean oil) or animal oil (lard) to which is added a greater than 20C omega-3 unsatd. fatty acid. The obtd. plant or animal oil is employed as oil matls. of feed. The growth of the fish is good and the death rate of the fish is very low. The fatty acid is e.g.

$CH_3CH_2(CH{:}CHCH_2)_4(CH_2)_5COOH$,
$CH_3CH_2(CH{:}CH_2)_5(CH_2)_2COOH$,
$CH_3CH_2(CH{:}CHCH_2)_5(CH_2)_4COOH$,
or $CH_3CH_2(CH{:}CHCH_2)_6CH_2COOH$.(J51051492)

SEIS D13 31914 C/18 = J8 1001-061

Purificn. of stevioside extract - by coagulation and removal of colloidal impurities by addn. of calcium chloride, aluminium chloride or iron chloride

SEISAN KAIHATSU KAGAKU 11.09.78-JP-111935

*A91 B03 E13 (10.01.81) *J55039-731 A23l-01/22 C07h-01/08*

11.09.78 as 111935 (9pp42)

Purification of stevioside-extract (I), which is obtained by extn. of stevioside from leaf of Stevia Rebaudiana Bertoni with water or water-contg. alcohol, comprises coagulation and removal of colloidal impurities in (I) by addn. of at least 1 of $CaCl_2$ $AlCl_3$, and iron chloride.

After addn. of the chloride the colloidal impurities coagulate into a large floc, resulting in easy removal by filtration. Impurities having mol. wt. larger than stevioside can be removed almost totally and therefore ion exchange resin, polymer adsorbent, ultrafiltration-membrane, etc. used thereafter for purification of (I) are not damaged. Stevioside adsorbed on the coagulated precipitate can readily be recovered by washing with water.(J55039731)

GENO D13 74263 V/42 = J8 1001-062
Freshly popped popcorn flavourant - by reacting glyoxal or glycoaldehyde with ammonium sulphide
GENERAL FOODS CORP 02.01.73-US-320423
*(10.01.81) *US3840-675 A23l-01/22*
20.07.73 as 082455 (4pp)
Process for producing title flavourant comprises (a) prepg. a reaction mixt. comprising glyoxal or glycoaldehyde and a sulphide source, (b) heating the mixt. at an elevated temp., (c) cooling the mixt., (d) adjusting the pH to less than 7 to evolve excess H2S and (e) ageing the reaction mixt. to develop the characteristic pleasant flavour and aroma.
Pref. the reaction is carried out at pH 12 and the pH is adjusted to 3 after the heating step. The mixt. is aged for 1/2-2 days.(J49094874)

ROSS- ★ D13 D/06 ★PT --71-614
Shredding machine esp. for tomatoes - has rotatable hollow drum, with apertured side wall and open base, in contact with second rotatable drum
ROSSI & CATELLI DI 27.07.79-IT-040091
P41 (14.01.81) B02c

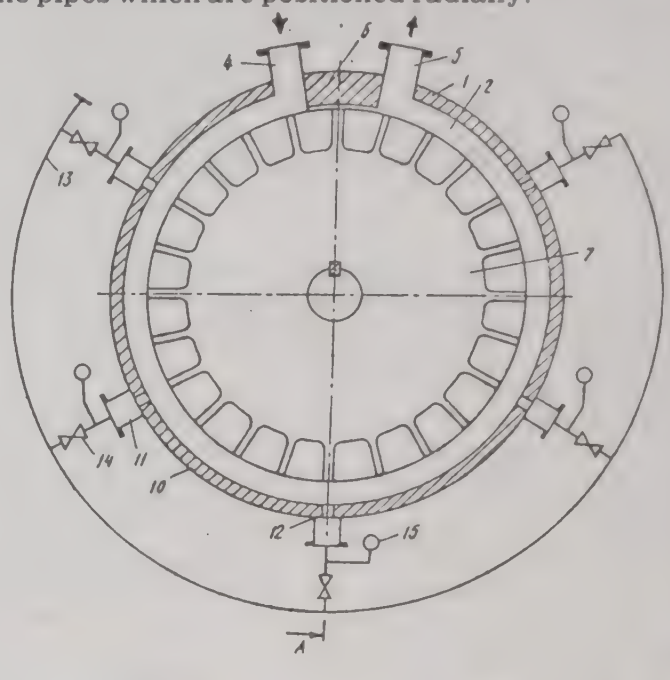
KOMP = ★ D13 09076 D/06 ★SU -738-581
Dried egg white prodn. - by separating yolk, concentrating through membrane, and spray drying
KOMPLEKS POULTRY 10.10.78-SU-673875
(05.06.80) A23b-05/02
10.10.78 as 673875 (2pp29)
Method of preparing dry powdered egg albumen in the food, medical and pharmaceutical industries, by concn. dispersion, and spray-drying. Product quality and yield are increased by concentrating the egg-white on cellulose-acetate membranes having average dia. of holes = 0.3 to 0.5 microns, at a flow velocity of 0.35-0.6 m/sec. pressure = 4-5 atm; to produce particle size 140-180 microns. Air temp. at beginning of drying is kept at 180-195 deg.C., and at end = 55-65 deg.C. The fraction of the dried egg white with particle size less than 15 microns is returned to the drying zone.

LAGR = ★ D13 09079 D/06 ★SU -738-584
Preservation of fodder grains - includes spraying with soured whey as preservative and nutrient
LATV AGRIC ACAD 22.01.79-SU-739863
C03 (05.06.80) A23k-03
22.01.79 as 739863 (2pp70)
The nutritive value of the fodder is increased by using as a preservative a soured whey (acidity 1000-2000 deg.T) contg. 28-30% of solids including vitamin B complex.
The whey is used in an amt. of 2-10% w.r.t. the fodder. After the stirring, the ventilation is carried out until a solid film is formed on the grain surface. The grains treated in this manner can be stored for at least one year.

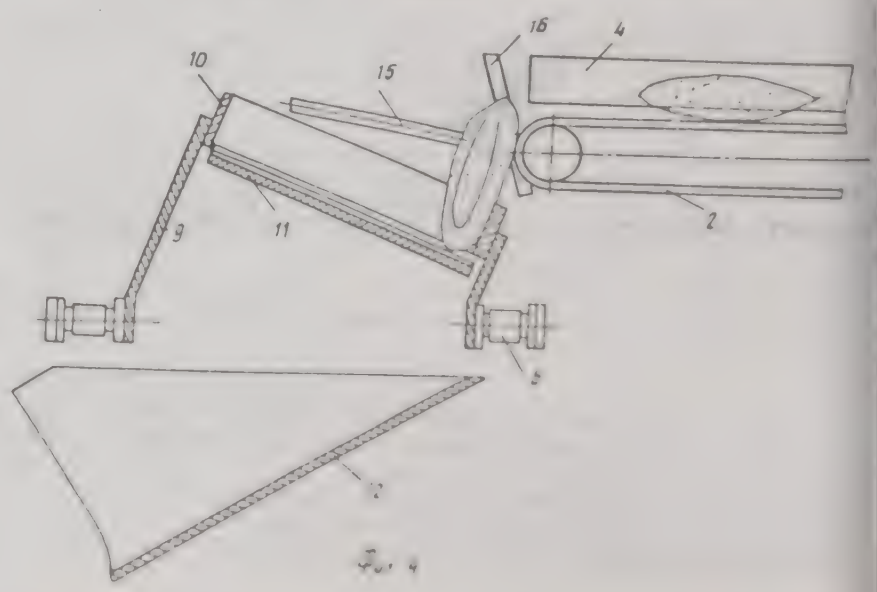
BIOC = ★ D13 09080 D/06 ★SU -738-585
Animal feed vitamin d-3 based supplement - contg. vitamin D-3, provitamin D, irradiated ergosterol and unconverted dehydro-cholesterol
BIOCHEM INST 16.03.76-SU-334407
B05 C03 (B01) (05.06.80) A61k-31/59
16.03.76 as 334407 (4pp938)
Animal feed vitamin D3 based supplement, useful in rickets prevention, contains (in wt.%): vitamin D3 55-60; provitamin D 12-15; lumisterol 15-20 and unconverted 7-dehydro-cholesterol 5-10. The stable vitamin D supplement is obtd. cheaply and in high yield (55-70%) by uv. irradiation of soln. of 7-dehydro-cholesterol (I) or its deriv. in organic solvent followed by thermal isomerisation and concn. of the resulting soln.
In a continuous process, the soln. of (I) is irradiated with uv. light source in 290-312 nm. wavelength region until 90-95% provitamin conversion in a tubular flow-type reactor equipped with uv light source. The thermal isomerisation and the concn. of irradiated mixt. are conducted simultaneously during the heat treatment at 70-80 deg.C for 2-2.5 hrs. Bul. 21/5.6.80.

MOMA = ★ D13 09081 D/06 ★SU -738-586
Aromatised grape juice concentrate prodn. - by fractionating treating de-aromatised fraction with calcium carbide and recombining
MOSC MAGARACH 07.12.77-SU-551424
(D16) (05.06.80) A23l-02/08
07.12.77 as 551424 (4pp29)
Method for producing aromatised fruit juice concentrate, as in the wine-making industry, by separating the juice from solid residues, heating the juice, separating into aromatised and de-aromatised fractions, concentrating the former by distillation, dehydrating the latter fraction, mixing the residues with a water/alcohol solution and extracting and, finally, enriching the dearomatised fraction using the aromatic substances in the extract plus the aron fraction. Product quality is increased by cooling the dearon fraction to 15-20 deg.C, prior to dehydrating. The dehydration at the same temp. by adding calcium carbide, mixing, and al the acetylene to escape. The acetylene is washed to remo aromatic substances and the latter is returned to the dearon fraction. The extraction is done by distillation of the mixt separate the aromatic substances which are combined wi aromatised fraction.

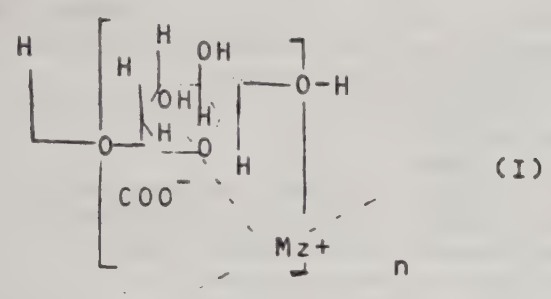
MOGI = ★ D13 09082 D/06 ★SU -7
Milk sterilising appts. - has circular channel where moving meets steam flow
MOGIL TECHN INST 09.11.77-SU-541422
(05.06.80) A23c-03/02 A23l-03
09.11.77 as 541422 (3pp29)
Equipment to sterilise liquid food products, e.g. milk, at ultra temps. has body with inlet and outlet pipes, eccentrically mo rotor and steam distributor with pipes and throttle valves. Or nutritional properties of the product are retained with sterilis uniformity, by making the rotor from discs positioned to circular flow channel between it and the body to allow the produ pass through, and having receivers for the mixed product rad around its perimeter on both sides. The body has dividing scr between the pipes which are positioned radially.



KFOO = ★ D13 09084 D/06 ★SU -73
Cucumber calibrator - has frame with widening slot through whi passes
KAZA FOOD DES BUR 02.12.77-SU-549384
P43 (05.06.80) A23n-15 B07b-13/04
02.12.77 as 549384 (4pp29)
Equipment for calibrating cucumbers by length, has fra conveyor for feeding the cucumbers are by one, chain conveyor feeding the cucumbers one by one, chain conveyor with the link the calibrating attachments across it, sloping area with gradua winding calibrating slits, and a conveyor to take away the calibra cucumbers. Calibration is made more effective by fitting the f conveyor with a strip lengthwise, with springs at an angle. calibrating attachment is in the form of a rectangular frame rigi fastened using brackets on the conveyor chain links. Protect screens are attached parallel to the end of the calibrat attachments and bent elastic rods are arranged at an angle to screen at a point where the cucumbers are transferred from conveyor to the other. Bul. 21/5.6.80.



D13 75406 Y/42 = SU-739-077
go- and poly-galacturonate complexes - for use as food and medicaments
GYOGYSZERVEGYESZETI (MAGY) 31.03.76-HU-4
*04 E12 (A96 A97 B03) (05.06.80) *NL7703-475 A61k-31/70 3/06 C07h-23*
s 465854 (7pp-)
go- or polygalacturonate complexes of formula (I) are new. M(z+) is ferric, cuprons, cupric, divalent manganese, zinc, trivalent chromium, pentavalent molybdenum, nt vanadium, or divalent nickel ions. or a combination n is 2-500. Cpds. (I) are sources of essential trace elements for use as food additives and medicaments, e.g. for treating , diabetes and Mg. deficiency.
cal cpd. is ferrous decagalacturonate. In an example, this is om decagalacturonic acid and FeSO4.
(I) are prepd. by reacting the corresp. oligo-or cturonic acid (e.g. obtained from pectin) with a M(z+) salt lex with a lower stability constant than (I). If the metal in the complex is in a higher oxidn. state than Z, the prod. is . Bul.21/5.6.80



(I)

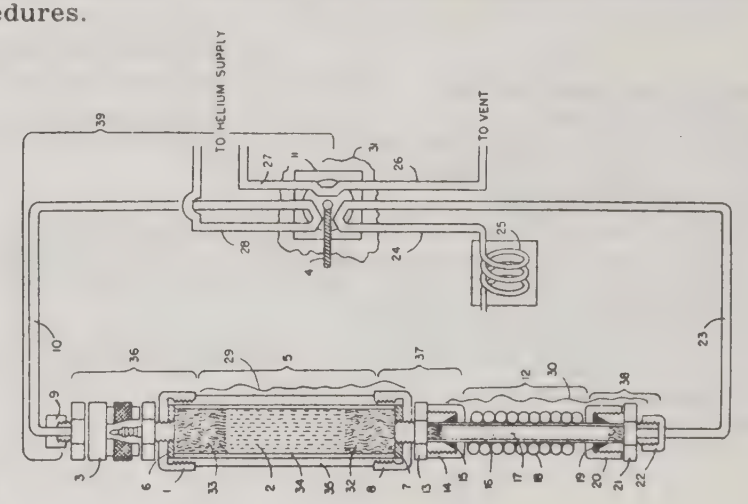
= ★ D13 09415 D/06 ★SU-739-405
aining storage stability of dried milk - by fractional determn. particle size in mixts. of chemically inert liquids under of centrifugal force
VROPOL POLY 09.11.77-SU-541234
(15.06.80) G01n-33/04
as 541234 (4pp70)
ethod can be improved by determining percentage quantities erent density fractions, whereby its storage stability can be ed.
mixt. defined above is subjected to centrifuging at 1000-3000 for 3-6 min. The resulting fractions are sepd.; the chemically quid is evaporated at 60-80 deg.C; the residue is cooled to 20-22 and the quantity of each density fraction is determined by the sion method. Bul.21/5.6.80

= ★ D13 09416 D/06 ★SU-739-406
nination of small amts. of fats in milk prodn. aq. wastes - es hydrolysis of protein with ammonia, extn. of fat treatment olour forming agent and optical density measurement
IRY IND RES INST 30.12.77-SU-570062
(D15) (05.06.80) C02c-05 G01n-33/04
7 as 570062 (4pp815)
n milk prodn. waste are determined by hydrolysis of the ns with conc. ammonia, neutralisation of the soln. with acid to .5, extn. of fat with organic solvent, dehydration of the extract a hygroscopic salt, removal of solvent, treatment with xylamine and heating, addn. of ferric chloride and optical y analysis.
method allows determination of as little as 3 mg./l. fat, ared to 250 mg./l. by the previous gravimetric method, and is . Bul.21/5.6.80.

A = ★ D13 09417 D/06 ★SU-739-407
mination of solid phase in fatty food prod. e.g. cream - includes ng, purificn. cooling and mechanical working to find optimal tions for crystallisation and structurisation
KR MEAT DAIRY RES 31.07.78-SU-654112
3 (15.06.80) G01n-33/04
78 as 654112 (2pp70)
method is improved by regulating the speed of the mixer in the of 10-100 rpm and the power in the range of 25-400 W/kg.
cooling is maintained at 20 to 0 deg.C.
this method optimal crystallisation and structurisation tions can be determined. Bul.21/5.6.80.

PLAN = ★ D13 09425 D/06 ★SU-740-204
Aq. nutrient for entophage insects Chrysopa septempunctata - includes casein, saccharose, dry milk, cholesterol, brewer's yeast autolysate essential amino acids, fats, choline chloride vitamin(s) etc.
PLANT PROTECTION 17.01.79-SU-738315
C03 P14 (18.06.80) A01k-67
17.01.78 as 738315 (3pp70)
Nutrient for cultivation of entophage insects Chrysopa septempunctata (image) contains (in wt.%) casein 6.8-7.2, saccharose 9.8-10.2, dried milk 3.9-4.3, maize oil 0.9-1.2, butter 1.4-1.6, Vesson's salt 0.9-1.1, cholestrol 0.19-0.22, autolysate of brewer's yeasts 18-21, cyatine 0.019-0.022, arginine 0.009-0.011, glutamic acid 0.019-0.022, methionine 0.009-0.011, tocopherol (E) 0.078-0.083, ascorbic acid (C) 0.148-0.152, choline chloride 0.078-0.083, biotin 0.000038-0.000042, folic acid 0.0048-0.0051, calcium panthogenate 0.009-0.011, nicotinic acid 0.009-0.011, pyridoxin (B6) 0.0018-0.0022, p-aminobenzoic acid 0.009-0.011, vitamin A 0.0009-0.0011; the balance is distilled water.
The nutrient produces high viability insects which are used in biological control of agricultural insect pests. The average life time of the insects is 3 months. A female produces 130 eggs, with viability 98%. Bul.12/15.6.80.

USDA ★ D13 09457 D/06 ★US 4245-494
Analyser for volatiles from food prods - using direct gas chromatography or combined direct gas chromatography and mass spectrometry
US SEC OF AGRICULTURE 26.02.79-US-015507
A89 J04 S03 (20.01.81) G01n-31/08
26.02.79 as 015507 (9pp67)
Appts. for analysing volatile components from raw or processed food prods. using direct gas chromatography or combined direct gas chromatography and mass spectrometry comprises an inlet assembly contg. a sample fixed to a He carrier gas supply. Volatiles are driven off the sample and fed to a condenser which removes moisture. The resultant moisture free volatiles are fed to a gas chromatograph or combined direct gas chromatograph and mass spectrograph for analysis.
Used in analysis of volatiles in soybean oils and or corn-soy food blends. Single step closed system avoids complex moisture removal procedures.



CAMP- ★ D13 09463 D/06 ★US 4245-552
Apparatus for texturising proteins - die extruding dough sheet to gas texturising zone followed by cutter
CAMPBELL SOUP CO 29.09.78-US-946879 (31.10.77-US-846823)
(20.01.81) A23j-01 A23j-03
29.09.78 as 946879 Div ex 4139648 (15pp1358)
Appts. for texturising e.g. soy flour includes a die extruding a continuous thin semi-rigid sheet and heated to texturise both sheet surfaces, and a confined zone following the die with a hot gas supply for further texturising. A cutter at the zone end segments the sheet and the segments are passed through a second confined zone with a back-pressure maintaining unit at the discharge end, for final texturising.
There is pref. a low-work screw feed to the die and the die has a tubular orifice producing a tubular sheet which is longitudinally slit into continuous arcuate segments at the entrance to the first zone. The gas flow in the first zone flexes and assist in propelling the sheet.

MAGI- ★ D13 09472 D/06 ★US 4245-615
Modular domestic cooking range - formed from separate side panels, top, bottom and back panels, front frame and oven
MAGIC CHEF INC 30.04.79-US-034737
X27 (20.01.81) A21b-01
30.04.79 as 034737 (6pp295)
Modular cooking range has a pair of side panels as its main structural unit. At least one top member is secured to the side panels

as a range back. A bottom member extends between the side panels. A separate oven front frame is secured between the side panels and it extends from the top to the bottom members. A thermally insulated oven shell with an open front is positioned within the frame formed by the side panels, top, bottom and back members. The oven shell is secured to the oven front frame.

The range is partic. designed for the domestic market. It is versatile as different members can be incoroorated.

GREA/ ★ D13 09509 D/06 ★US 4245-973
Punch for cutting ice-cream slabs - with transverse top strip handle and continuous sheet wall of stainless steel
GREANEY E J 07.03.78-US-884710
Q34 (20.01.81) A23g-09 B65d-85/78
07.03.78 as 884710 (4pp1358)
Punch has a wall of flat stainless steel sheet 0.0001-0.2 inch thick and forming an enclosed shape which is largely rectangular in cross-section. A handle is a stainless steel strip 0.0001-0.2 inch thick and bent at right angles at the ends and spot welded to opposed points on the wall.

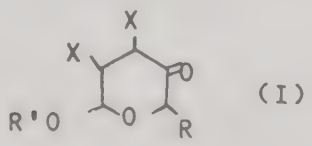
The shape is pref. generally circular or square to produce slabs for ice-cream cakes. The steel is pref. of series 302 or 316 and is 0.02-0.03 inch thick. The metal is inert to the ice-cream and can be cleaned with strong detergents and bleach.

SUNK- D13 69550 C/39 = US 4246-098
Appts. for automatically grading and sorting articles, esp. fruit - according to size, surface blemish and colour
SUNKIST GROWERS INC 21.06.78-US-917724
*P43 (20.01.81) *ZA7902-266 B07c-05/34*
21.06.78 as 917724 (30pp1376)
Blemishes on articles, e.g. fruit, are detected and measured using appts. including a sensor for measuring the intensity of light reflected from the article surface, and a comparing arrangement for comparing the signal from one area to the signal corresp. to an adjacent area. The signals are combined to produce a measurement of blemishes.

The sensor and comparing arrangement pref. from a sequential signal. Fruit can be graded and sorted automatically.
the development of aerobic bacteria without increasing the development of coliform bacteria).

SHIE D13 44451 B/24 = US 4246-178
Tetra:hydro-pyranone derivs. - useful as intermediates for cpds. used as food flavours
SHINETSU CHEM IND KK 12.12.77-JP-149605
*C02 E13 (20.01.81) *FR2402-654 C07d-309/06*
18.10.78 as 952457 (13pp945)
Tetrahydropyran-5-one cpds. of formula (I) are new, where R is H or 1-7C monovalent hydrocarbon gp.; R' is 1-7C monovalent hydrocarbon gp. or acetyl and X is halo. Pref. cpds. have R as (m)ethyl and R' as (m)ethyl or acetyl.

The cpds. are prepd. by reacting a 2-furyl carbinol cpd. with a halogen in the presence of an alcohol or carboxylic acid. They are useful as intermediates to 2-alkyl-3-hydroxy-4H-pyran-4-one cpds., including the flavourant maltol.



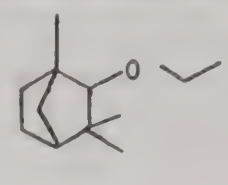
(I)

GENO D13 58788 C/34 = US 4246-286
Chewing gum having sweetness retention on prolonged storage - and contains methyl ester of L-aspartyl-L phenylalanine, and of specific aq. extract pH
GENERAL FOODS CORP 12.04.79-US-029183
*E14 (20.01.81) *BE-882-672 A23g-03/30*
12.04.79 as 029183 (5pp931)
Storage-stable chewing gum contains 0.1-1.5 wt.% of L-aspartyl-L-phenylalanine methyl ester, has a pH of 5.0-7.0, and is free of acid saccharin, acid cyclamate or sour fruit flavours.

The pH is measured on a water extract of the gum such that the formation of diketopiperazine is minimised and the sweetness of the ester is maintained during prolonged storage. Pref. the gum contains no calcium carbonate, and further comprises 15-40 wt.% of a gum base contg. 10-50 wt.% of a magnesium silicate filler.

The chewing gum base may contain elastomers and their solvents, a hydrophilic-type detackifier, waxes which act as lubricants, emulsifiers, colourants and non-acid or mint flavouring.

INFL ★ D13 09641 D/06 ★US
Augmenting or enhancing the lemon flavour of foodstuffs or c gum - by addn. of fenchyl ethyl ether
INT FLAVORS & FRAGR INC 26.10.79-US-088617 (27.0 872937)
B07 E15 (B05) (20.01.81) A23l-01/22
26.10.79 as 088617 Div.ex 4131687; 4163068 (+ 5.9.78; 16.2.79-US 012798) (22pp513)
A process is claimed for augmenting or enhancing the arc taste of a lemon flavoured foodstuff of chewing gum by addin 0.5-100 ppm substantially pure fenchyl ethyl ether of formula (
The (I) is prepd. eg. by reacting fenchyl alcohol with s hydride and diethyl sulphate in the presence of DMF. In an ex 10 ppm (I) is added to 'Boones Farm Apple Wine' (RTM) to fuller, aged, brandy-like character.



(I)

USDA ★ D13 09643 D/06 ★US 42
Prodn. of dried edible pieces of aroid corms - by treatmen alkali, hydrogen peroxide and drying
US SEC OF AGRICULTURE 05.07.79-US-055116
(20.01.81) A23l-01/21
05.07.79 as 055116 (4pp955)
The raw corns are peeled, washed, cut into pieces, and treate 2-5% aq. alkali based on wt. of corns at 20-30 deg.C for 10-24 hr pieces are then removed, washed, and treated with water cont 10% hydrogen peroxide, based on wt. of corns, for 10-30 hrs., us 4 pts. water per pt. corns. They are then washed with wate dried to 5-10% moisture.

The prods. are novel food materials. They are storage stable hygroscopic, of even colouration, and are free of the compo responsible for irritation of mucous membranes of mouth throat. A gum can be obtd. from the used alkali soln. useful thickener and emulsifier in foods. etc.

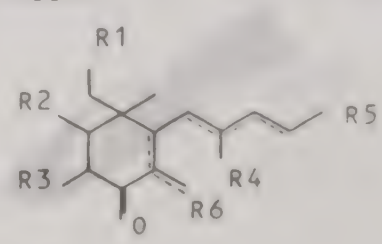
GENO ★ D13 09644 D/06 ★US 42
Decaffeination of aq. coffee extract - with preliminary strippi volatiles which are returned afterwards
GENERAL FOODS CORP 26.03.79-US-023878
(20.01.81) A23f-05/18
26.03.79 as 023878 (5pp955)
a) The extract is stripped to remove volatiles and about 5-15% wt; b) The extract is concentrated to 30-50 % solids and th evaporate is condensed. c) The concentrate is then counter cu extracted with a decaffeinating fluid in either gas, lic supercritical state, at 10-180 deg.C and 50-450 atmos. d) The caf laden fluid is then contacted with an aq. stream contg condensate from step b) at 10-180 deg.C and 50-450 atmos. e extract and the caffeine-loaded aq. stream are separately pass vent tanks from which volatiles are condensed. Caffeine is rem from the aq. soln. and at least part of it is used with the conde from b) as the aq. stream in step d). f) The condensed strippings step a) and the volatiles condensed in step e) are then added t decaffeinated extract.

Losses of volatiles are reduced, and the final extract has a fla very similar to the original.

NAAR D13 38855 A/22 = US 424
Substd. cyclohexenone and cyclohexanone derivs. - use flavouring and perfuming cpds., in cosmetics, foods, dr cleansers, detergents, space deodorants and pharmaceuticals
NAARDEN INT NV 23.11.76-GB-048762
*B05 E15 (D16 D21 D22 D25) (20.01.81) *DE2752-787 A23l-01/2*
22.11.77 as 853907 (6pp982)
Mfr. of a flavouring compsn. contg. carriers, diluents, essentia and other auxiliaries, comprises adding to the compsn. a ketone of formula (I).

In (I), R1 to R5 are each H or CH3 and the dotted lines are site double bonds provided that the side chain carrying the gps. R4 R5 contains not more than one double bond. R6 is H, CH3 or C2 the bond between the nucleus of the cpd. is monovalent methylene or ethylidene if the bond is a double bond.

(I) imparts a fruit-like flavour to the compsn. and is present i amt. of 0.005-100 ppm.



(I)

★ D13 09645 D/06 ★US 4246-293
ood based on whole potatoes - with added protein to increase content
SON J M 21.09.78-US-944322
1.81) A23l-01/21
as 944322 (4pp955)
ed raw potatoes are cut into pieces, blanched at 140-200 deg F ecs to 2 mins, and predried to 60-75 wt% mositure. The pieces n intimately mixed with 15-40 wt% based on wt of potato, of a additive, and the mixture is extruder cooked at elevated nd pressure.
protein additive is pref textured vegetable protein, meat and roducts, dried fruit bits and milk protein.
prod has a high protein content, but retains the flavour of Vitamins etc contained under the skin are not lost if the otato is used.

★ D13 09720 D/06 ★WP 8100-061
ted emulsifier prodn. - opt. contg. shortening and flavouring, nding molten emulsifier with water and chilling the mixt.
UTHLAND CORP 27.06.79-US-052459
(D21 E12) (22.01.81) A23d-05 A23l-01/22 B01f-17/34
0 as U00793 (24pp513) (E) US3253928 US3785993 US3973053 5069 US3549382 US3993580 US3943259 US3702307 US3671459 BR JP) E(AT CH DE FR GB NL SE)
ted emulsifiers are made by (a) heating an emulsifier rising a fatty acid partial ester of a polyol; a half ester of ic acid and a mono-acylated polyol; an alkoxylated nsate of a monoglyceride; stearoyl-2-lactate or its calcium and n salt; an alkoxylated fatty acid partial ester of a polyol; r a diacetyl tartaric acid ester of a fatty acid partial ester of a to form a melt; (b) adding water to the heated emulsifier and ng the mixt.; (c) applying the mixt. to a chiller and (d) ering the hydrated emulsifier contg. about 2-15 wt.% water of tion.
emulsifier is pref. blended with an at least partially genated vegetable or animal shortening (such as soya oil, corn anut oil, cottonseed oil, palm oil, coconut oil, lard, tallow or e oil) before the hydration stage, to give a powdered, water- rsible shortening-hydrated emulsifier blend contg. 2-15 wt.% of hydration and at least 0.1 wt.% shortening. The prods. may also be flavoured by incorporating natural or artificial flavours (such as butterscotch, chocolate, peppermint, orange, lemon)..
The powdered or flaked hydrated emulsifier or shortening/emulsifier prods. are useful e.g. in the prodn. of bakery mixts. such as break and cakes or cosmetic prepns. such as lipsticks. The flavoured materials allow prodn. of flavoured prods. on a domestic scale, which was previously difficult.

FUJI/ ★ D13 09727 D/06 ★WP 8100-092
Method of supplying gas absorbent powder - comprises placing powder in gas-permeable bag and covering with pierceable plastics film
FUJISHIMA D 07.07.79-JP-086189
A92 J04 Q31 Q34 Q76 (22.01.81) A23l-03 B01d-53/04 B01j-19/04 B65b-61/20 B65d-81/24 F26b-05/16
07.07.80 as J00156 (11pp1412) (J) J52154536 J75016834 J71009767 J60029569 J52028955 N(AU US) E(DE FR GB NL SE)
Method of supplying gas absorbent into receptacles containing articles to be protected from gas in which conventional gas absorbent such as used for foodstuff, etc., e.g., zeolite, ion exchange resin, bentonite, magnesium oxide, etc., in the form of powder or grains, normally with a particle diameter of at least 5 mm., and pref. 150 micron or less, or better 50 micron or less, is put into a bag of gas-permeable material with high resistance to thermal degradation, e.g., paraffin paper, asphalt paper, non- woven cloth, etc., which may be backed with a film of gas permeable plastic, and the whole is sealed in a bag of plastic film that is impermeable to gas and is degradable or fusible by heat, e.g., polyethylene, polyethylene terephthalate, polyamide, PVC, etc., suitably 5 micron and pref. 20 to 100 micron thick. Immediately prior to use, e.g., insertion into a container holding foodstuff, the outer gas-impermeable film has holes pierced in it, e.g., by a spiked roller heated to 200-400 deg.C. Suitably, hole dia. is 0.05 to 2 mm., and 1 to 100 holes per sq.cmof outer film are pierced..
Absorbent can be stored indefinitely without deterioration due to absorption of ambient gases, and no absorbent is wasted during introduction into the place of use.

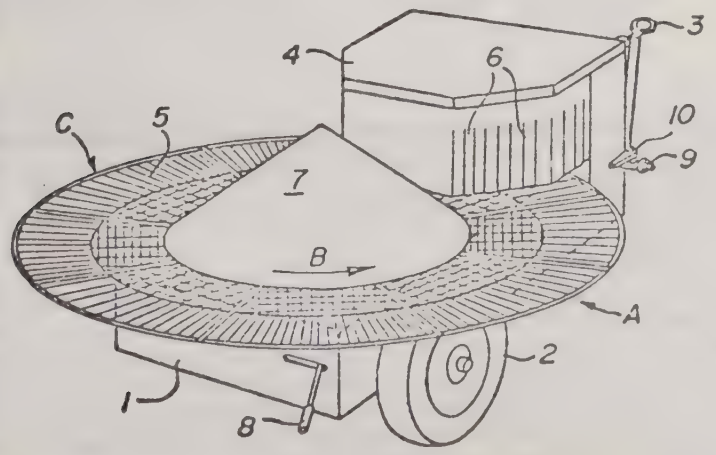
See Also

D16 SU739098 D16 SU 739099 D16 SU 739100
D16 SU 739101 D22 SU 738517 D22 J5 5154982
D15 RO 73604 D16 J5 5153591 D16 SU 739097
D18 D 2817092

D14: FOODSTUFF MACHINERY

- ★ D14 D/06 ★BR 7904-461
eam tin can cutter
BON IND ALIMEN SA 13.07.79-BR-004461
4 *(13.01.81) A23g-09/28 B65d-85/78*

J/ ★ D14 08134 D/06 ★EP --23-008
sis mounted mobile cleaner for market garden vegetables - s only water supply to drive conveyor and wash prod.
CHUBETZER J 18.07.79-FR-018988
3.01.81) A23n-12/02
80 as 104073 (13pp448) (F) FR1602022 FR1119380 DS-947267 38658 E(AT BE CH DE GB IT LI LU NL SE)
f-contained, mobile machine for cleaning vegetables is of the which has a powered conveyor carrying the vegetables through shing and cleaning station. The improvement is that the ine is now mounted on a rigid, wheeled chassis which can be d onto a field where vegetables are harvested. The conveyor is izontal, circular plate which is rotated on its central, vertical
A stationary hood covers a section of the rotating plate to e a water spraying and scrubbing station. The plate is rotated by a double-acting, hydraulic power cylinder via a linkage to convert reciprocal to rotary motion..
The machine is used for washing and scrubbing bunches of carrots and other vegetable prods., partic. from market gardens. The machine can be towed to a harvest field and needs only to be connected to a water supply to be fully operational.

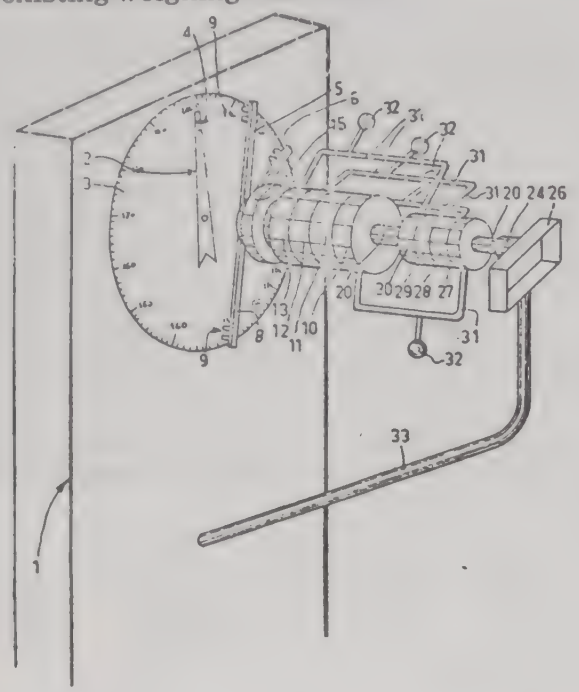


VALL/ ★ D14 08266 D/06 ★FR 2454-088
Dispensing pump for delicate prods. such as cheese curds - protects prod. by eliminating narrow valve passages
VALLAS G 09.04.79-FR-008980
(12.12.80) G01f-11/18
09.04.79 as 008980 (11pp448)
A volumetric dispensing pump for delicate fluid prods., partic. food prods. such as cheese curds. The pump is of the type comprising a cylinder and piston assembly.
The end of the cylinder remote from the piston rod now has a coaxial port of the same or very nearly the same, dia. as the cylinder bore. This open end of the cylinder slides laterally in face contact on a valve plate between two positions. In one position the cylinder port is aligned with a valve plate opening or similar dia. through which piston suction will draw prod. into the cylinder. In its other position, the cylinder port is aligned with a valve plate opening or similar dia. into which piston advance will deliver prod. from the cylinder. A line of piston/cylinder assemblies can be moved to and fro between a line or corresponding suction holes and a line of delivery holes. A piston/cylinder assembly can be rotated about an axis parallel to its own to meet suction and delivery holes on a concentric pitch circle.
Used for dispensing delicate fluid prods., partic. foodstuffs such as cheese curds, jellies, creams, butter, margarine and fruit in syrup. Such prods. can be pumped without risk of damage which results from forcing them through narrow valve passages.

CLER- ★ D14 08267 D/06 ★FR 2454-140
Preselector control for ingredient weights in cattle feed - can be fitted to dial of existing weighing machine
CLEREN SA 14.03.79-FR-006479
T05 (T06) (12.12.80) A23n-17 G05b-11/ G06m-03/02*
14.03.79 as 006479 (11pp448)
The control is of the type in which the proportion of each ingredient is preset on a common weighing machine. A setpoint marker is positioned at an appropriate reading on a chart for each ingredient. The marker carries a proximity contact which responds as a trigger on the indicator needle approaches.

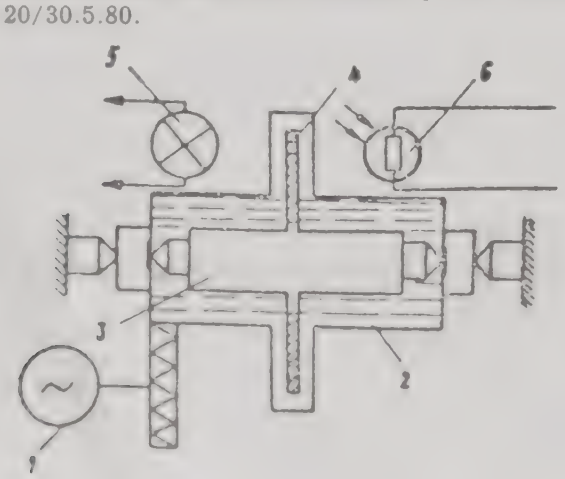
Each proximity contact is now fixed to one only of a set of coaxial sleeves which project through the transparent cover of the weighing chart. Each sleeve can be rotated independently of the others about their common axis. Adjustment of the sleeves is made outside cover. Each sleeve pref. has its own adjusting handle and is fitted with an independent friction brake to hold it in its set position.

The system is comparatively simple and inexpensive. It can be easily fitted to existing weighing machines.

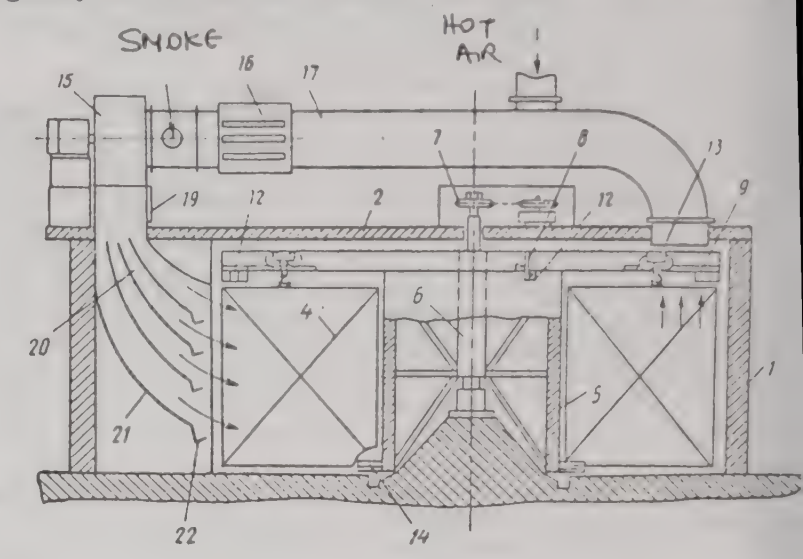


FAPE- ★ D14 D/06 ★PT --71-545
Crusher for e.g. olives - has blade, inner cylindrical chamber with serrated wall section and cylindrical rotor
FAPE DOMENICO D & C 31.01.80-IT-067140
(14.01.81) A23n

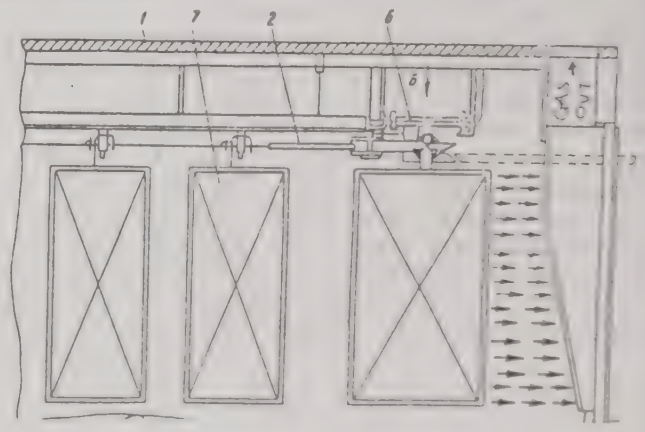
DAIR = ★ D14 09056 D/06 ★SU -737-831
Disperse state study in milk - by coagulating it and passing known intensity light pulses and measuring amount received
DIARY IND RES INST(MOMD) 24.11.77-SU-547164
S03 X25 (30.05.80) G01n-33/04
24.11.77 as 547164 (5pp29)
Method for control of the disperse state of milk, as a quality characteristic pref. by passing light, modified by an obturator, through a volume of milk and increasing the intensity of the light pulses. Sensitivity and accuracy of the measurement as milk coagulates is increased by placing the obturator in a volume of milk so that it is free to rotate at a speed spontaneously adjustable in relation to the composition of the dispersion phase. In addition to measuring the intensity of the light pulses their number is also determined, with the disperse state defined by the value obtained in unit time. Bul. 20/30.5.80.



AZOV = ★ D14 09073 D/06 ★SU
Fish, meat products curing appts. - has carriers on rotati with smoke supply in defined temp. zones
AZOV BLACK SEA FISH 21.12.77-SU-557519 (18.02.72-SU
(05.06.80) A23b-04/04
18.02.72 as 749296 (4pp29)
Equipment to dry and cure food products, such as fish, me placed into carrier containers, comprising chamber with a shaft inside it bearing supports for the containers, with fe heated working agent, and delivery and withdrawal pip productivity is increased together with the quality of the cu fitting a system to supply cooling air and positioning a scree the centre of the chamber so as to form a circular channel int the carrier and product are disposed. The delivery and with pipes of both systems are positioned symmetricall diametrically on opposite side of the channel. A screen is pos between the delivery pipes throughout the height of the ch The delivery pipe for the hot working medium has guiding s with gulleys at the bottom ends to collect and remove resins.

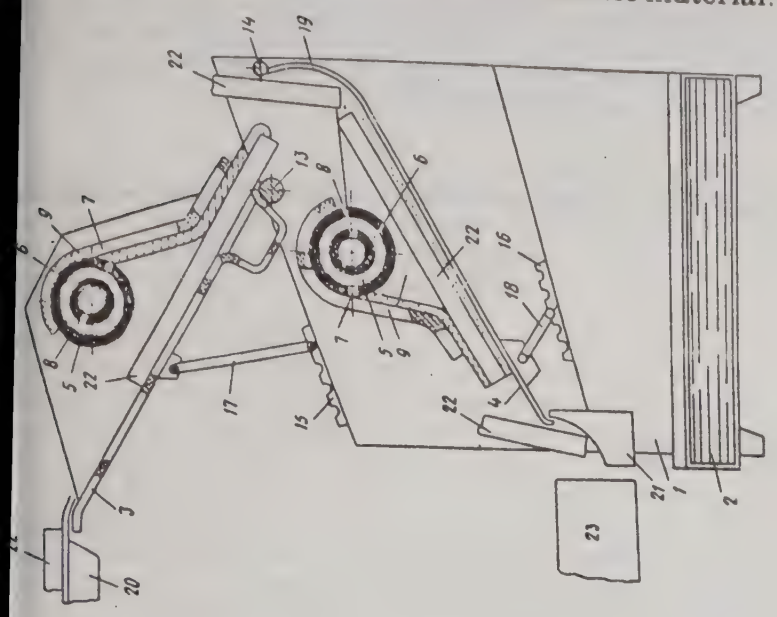


TEMR = ★ D14 09074 D/06 ★SU -
Food products smoking equipment - has cases moving th chamber fixed to overhead suspension by pawls
TEMRYUK FISH CANNIN 09.11.77-SU-541372
(05.06.80) A23b-04/04
09.11.77 as 541372 Add to 549131 (4pp29)
Equipment for smoking and sun-curing foods, such as fish sa etc., based on Parent Cert. No. 549131, which had a chamber system to feed in smoke and air. Passing through the chambe an endless chain conveyor with brackets and a suspension made endless and welded to make inner and outer arm distributed along the chains. Carriers were fixed to the chair moved by them. Productivity is increased and operating conc improved by fastening a monorail with holders for the capable of being turned, at the loading and unloading points s the carriers can run on the monorail portion. The holder is a bevelled on its free end.

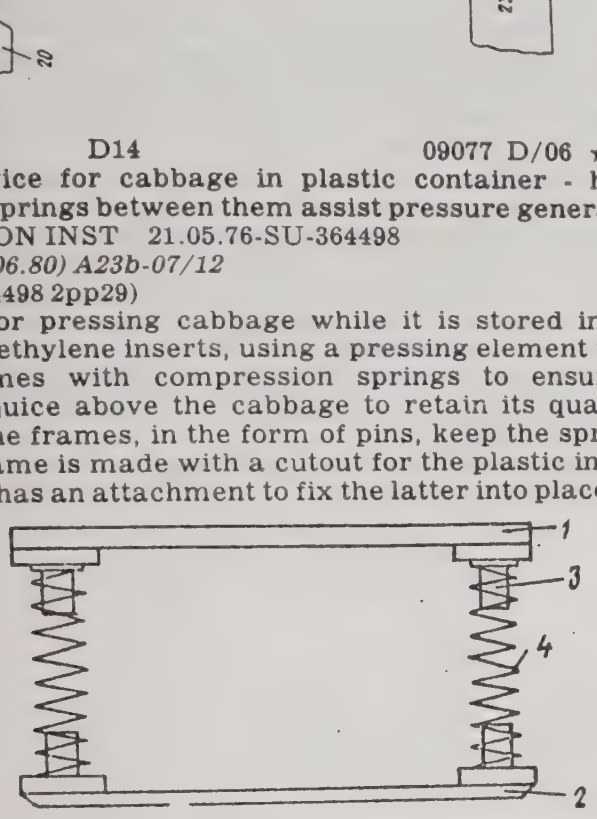


DUBR/ ★ D14 09075 D/06 ★SU -7
Glazing equipment for frozen food blocks - has wetting attach as two concentric tubes with holes, outer one of water abso material contacting blocks
DUBROVIN L V 21.11.77-SU-546487
(05.06.80) A23b-04/06
21.11.77 as 546487 (4pp29)
Equipment for glazing frozen blocks of food products, has cont for liquid and attachments to convey the blocks and to wet them glazing quality is increased and construction is simplified by m each wetting attachment as two concentric tubes with holes outer one is of water-absorbing material, which is fastened so t makes contact with a block. The conveying attachment comp sloping guides one above the other. At the transition point fro

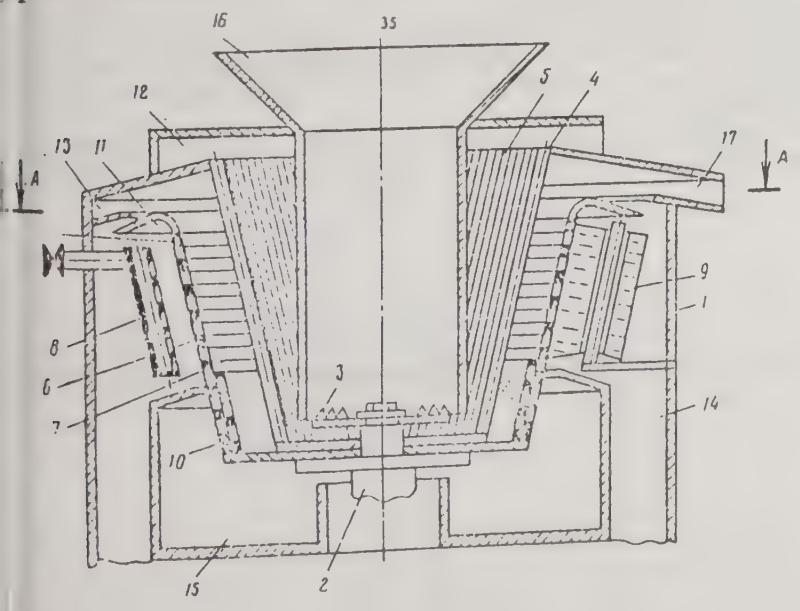
ne other is a curved tilter made from flexible material.



= ★ D14 09077 D/06 ★SU-738-582
g device for cabbage in plastic container - has parallel with springs between them assist pressure generation
CECON INST 21.05.76-SU-364498
(05.06.80) A23b-07/12
as 364498 2pp29)
ient for pressing cabbage while it is stored in containers n polyethylene inserts, using a pressing element made of two l frames with compression springs to ensure constant ce of juice above the cabbage to retain its quality. Guides d to the frames, in the form of pins, keep the springs in line. er frame is made with a cutout for the plastic insert and the rame has an attachment to fix the latter into place.



= ★ D14 09083 D/06 ★SU-738-588
al of seeds and juice from fruit - has rotor and drum formed and rings, with gaps for passage of seeds and pulp
AUCASUS HORTICUL 29.08.77-SU-523091
06.80) A23n-01/02
7 as 523091 (3pp29)
separate seeds and juice from seedy fruits, has body in which irtical shaft and disc crushers, plus concentric conical rotor um. Productivity is increased by providing a device to clean im, made as pneumatic jet and brushes parallel to the line of im. Filtering surfaces are in the lower part of the drum. The nd drum are formed by rods and rings respectively, made aps to allow seeds and pulp to pass through.

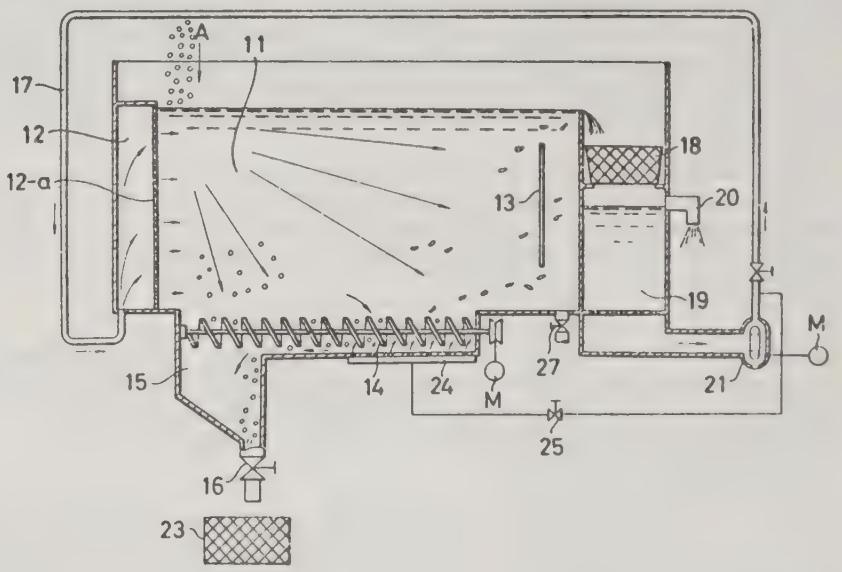


ODFO = ★ D14 09085 D/06 ★SU-738-590
Long vegetables cutting machine - has double set of hack-saw blades moving in opposite directions
ODESS FOOD MACH 07.12.77-SU-551960
(08.06.80) A23n-15/04
07.12.77 as 551960 (5pp29)
Machine for cutting long vegetables, for the conserves industry, has conveyor with V-shaped troughs and a collection of sloping hack-saw blades at the exit from the conveyor. These can move backwards and forwards on the vertical plane. Reliability is increased and cost is reduced by fitting extra hack-saw blades between the originals, and which reciprocate in the opposite directions. All the blades consist of rods with cutting edges. The V-shaped troughs are made from separate plates coming together in the form of a V, between which are spacing rings.

USSR = ★ D14 09222 D/06 ★SU-738-946
Fruit salad can filling machine - has adjustable stroke product packing seal reciprocated by hollow drive shaft mounted drum and product guides
USSR CONSUM SOC ASS 10.10.77-SU-531019
Q31 (05.06.80) B65b-01/10
10.10.77 as 531019 (6pp121)
The fruit salad can filling machine can pack various sizes of cans with accurate quantities of the product.It includes a round bunker mounted on the carousel's hollow shaft. The seals with the plunger driven rollers are mounted above the openings made in the bunker's bottom. The plunger's drum has an annular groove engaged with the rollers.The bunker includes product guides. The cans are moved around by a rotating table with spring-loaded lifting platforms operated by a cam. The machine is driven by a motor reductor. The cans are fed and removed by a conveyor and the stars.Bul.21/5.6.80.

ASAH- D14 08060 B/05 = US 4245-553
Steam pressure cooking autoclave for soya beans etc. - can cook and cool automatically in a very short time
ASAHIMATSU KORIDOFU 22.09.77-JP-114060
*+P28 Q67 (20.01.81) *BE-870-645 +A23n-07*
12.09.78 as 941586 (7pp1376)
Bean hulling and separating appts. consists of a huller for removing the hulls from the seeds, and a water tank to which the hullsand seeds are fed for sepg. the hulls from the seeds. The hulls are entrained in water flowing through the tank and over an overflow, and the seeds are removed from the bottom of the tank.

The water flow is controlled by separable planar members vertically aligned in the tank and being relatively movable to each other. Pref. an elongate screw conveyor removes the seeds from the water tank.



PENN ★ D14 09506 D/06 ★US 4245-936
Water tank for transporting fruit - with flow restricting paddle directing water to propel fruit to exit gate (ZA 31.12.80)
PENNWALT CORP 11.06.79-US-047230
Q31 Q35 (20.01.81) A23n B65b B65c-53/02 B65g
11.06.79 as 047230 (7pp293)
The flow of water through the tank is restricted and directed towards the bottom of the tank. The device which restricts the flow traverses the length of the tank in the same direction as the water flow to urge the fruit through and out of the tank. Pref. the restricting device consists of a paddle angled to the flow of water.

The tank is used for transporting measured quantities of fruit from a sorter to a packer. The appts. can handle fruits which float, sink, or are semibuoyant. The length of the tank compared with previously used tanks can be shortened. No flotation agent is needed to cause the fruit to float.

MEIS/ D14 29441 Y/17 = US 4246-462
Microwave tunnel oven for foodstuffs processing - in modular construction with full-opening side doors for easy cleaning
MEISEL N 09.10.75-FR-031023
*X25 X26 Q77 (20.01.81) *DE2642-152 + H05b-06/78*
04.10.76 as 729845 (11pp1358)
A microwave tunnel oven for continuous processing of food products has a transverse cross-section of uniform cruciform shape with entrance and exit shields and microwave emitters along the top or bottom wall so that the shape blocks some direct radiation towards the intersections of sides with top and bottom while not blocking radiation towards the centre of the cavity so that field intensity is greater along the centre.

The length of the cross-section arms is pref. 1/6-1/5 over and oven height is 1/3-1/2 the width. The microwave energ provided by magnetrons placed along both top and bot relatively staggered along the cavity axis.

D15: WATER TREATMENT

FARB ★ D15 07873 D/06 ★DE 2927-615
Detecting small silica quantities in water - using platinum operating electrode held 300 MV above reference electrode potential
BAYER AG 07.07.79-DE-927615
E36 J04 S03 (X25) (29.01.81) G01n-27/46 G01n-33/18
07.07.79 as 927615 (10pp1297)
Detector of small quantities of silica in water contains a measurement cell with operating, auxiliary and reference electrodes and the test fluid added to an acidic molybdenum soln. The operating electrode current is measured for a constant applied voltage.

Continuous economical measurements are made possible and both uniformity of sensitivity and maintenance requirements are improved over long measurement periods compared to conventional devices. An operating electrode of the first type is used and is held at a potential higher than that of the reference electrode by between 200 and 400 mV.

In partic., the operating electrode potential is 300 mV higher than the reference electrode potential. The operating and auxiliary electrodes may be of platinum. The detector is applicable in water treatment ion exchanges.

ENEA/ ★ D15 07882 D/06 ★DE 2927-701
Joint for ultrafiltration tubes - with separate membrane sleeves on porous support tubes in outer tubes
ENEA L 09.07.79-DE-927701
J01 (29.01.81) B01d-31
09.07.79 as 927701 (7pp1480)
Ultra-filter tubes each with an outer tube surrounding a porous membrane-covered support tube are connected by a joint which includes separate membrane sleeves held in the support tube, and into which is inserted a pressure socket. The socket has an outer flange whose one side-face abuts via a resilient O-ring against the outwardly cranked edge of one tube. The opposite face abuts, via the outwardly bent rim of the membrane sleeve and via a resilient O-ring set in a rigid support ring, against the outwardly cranked edge of the other tube.

The filtration units used in sepg water from a fliq medium in oil-emulsion separators, starch concentrators etc need not be thrown away when the internal membrane cladding on the support pipe is clogged:now only the loosely inserted membrane sleeve need be replaced.

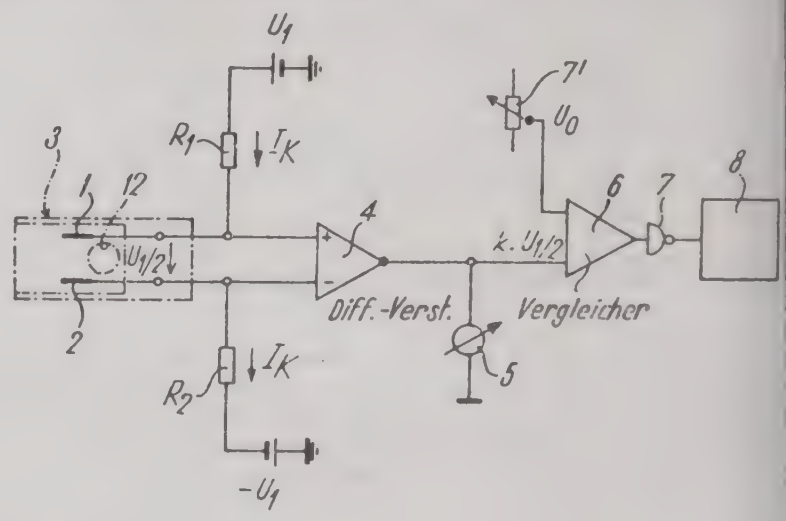
TAPR- ★ D15 07895 D/06 ★DE 2928-093
Lower pressure drop water filter - having inlet baffle with flaps to create recirculation to clean central filter element
TAPROGGE L REINIGUN 12.07.79-DE-928093
(29.01.81) B01d-29/20
12.07.79 as 928093 (18pp1053)
Solids are sepd. out of a water stream using separator with cylindrical housing and a centrally mounted filter element. This central element has an annular flow passage around it with purge outlets at the side opposite to the inlet.

Mounted in the inlet duct there is a triangular baffle which has vanes attached to the two downstream corners. These vanes can be moved either to contact the filter element in the centre or to touch the duct wall. By adjusting these vanes, intense recirculation can be achieved around the filter element to remove accumulated debris and flush it away in the purge stream.

Used esp. in filtering power station cooling water, process gives high sepn. efficiency with low pressure drops and low velocities (below 1 mls). Fish are not injured.

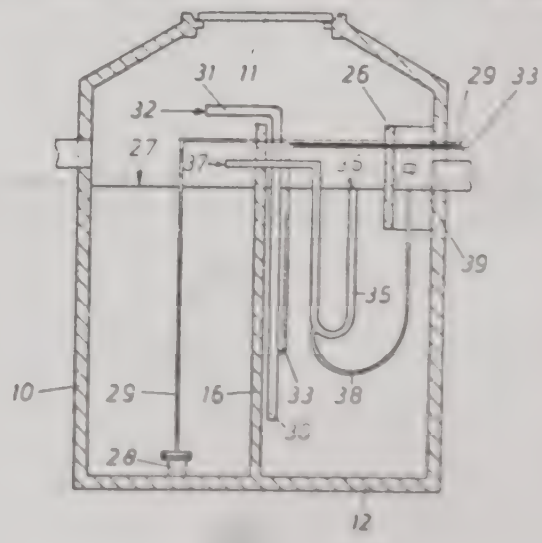
COOL- ★ D15 07911 D/06 ★DE
Determn. of ozone in water - via electronic appts. which is a to maintain constant ozone content in water, esp to kill bacte
COOLBOX VERTRIEB 13.07.79-DE-928324
E36 J03 S03 (29.01.81) G01n-27/46 G01n-33/18
13.07.79 as 928324 (8pp1144)
The appts. includes a cell (3) contg. two measuring electro made of a gold alloy. A constant current (Ik) of 0.1-1 microam through the electrodes (1,2) via a constant current source us resistors (R1,R2) connected in series with each electro electrodes are at the same absolute voltage, but have o polarities. Resistors (R1,R2) pref. have a large resistance w.r (RM) between the electrodes; and the voltage between ele (1,2) is pref. measured by a differential amplifier. Resistors (are pref. each 20-50 Mohm; and electrodes (1,2) pref. contain 8 15% Ag, 3% Pd, 2% Pt.

A simple method of measuring the ozone content of water in the ozone is used to kill bacteria.



GRUN/ ★ D15 07922 D/06 ★DE 29
Sewage treatment tank - with four sectors recycling acti sludge and froth into aeration sector
GRUNER W 14.07.79-DE-928540
(29.01.81) B01d-21/02 C02f-03/12
14.07.79 as 928540 (13pp39)
Biological sewage treatment tank is a vertical cylinder whi divided by four right angle partitions into four sectors, tw settling coarse particles, one for aeration and one fo clarification.

The latter is equipped with an air lift pump to raise the activ sludge which has settled on its bottom. A U-tube just belo



is part of another air lift pump so that the floating froth is d. The outlets of both pumps can be recycled either into the n sector or into one of the settling sectors.
recycles sludge and froth so wall that the re-clarification needs cleaning one instead of four times a year.

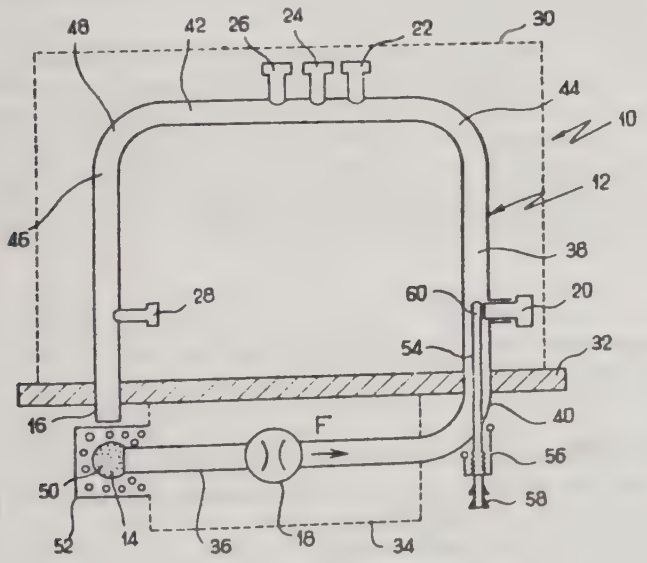
★ D15 07942 D/06 ★DE 2929-139
ic separator for water streams - to removed suspended al using centrifugal action to separate less dense solids from am and run them off via separate duct
RONYMIK 19.07.79-DE-929139
01.81) B01d-21/26
9 as 929139 (16pp1053)
ded solids are sepd. from a water stream by passing the into a spiral channel which leads inwards from the outside. ntrifugal action causes the less dense suspended material to e to the inner surface of the spiral duct.
the end of the duct a baffle is mounted to segregate the two ns and divert them into two separate outlets. The inner stream ns the solids while the outer stream contains the clarified

d esp. on plants and generating stations using large volumes of g water. Suspended debris is removed from such streams, fine ial being removed efficiently as well as coarse material.

★ D15 07949 D/06 ★DE 2929-486
tage slurry dewatering system - using superheated steam and ases
TACHI METAL KK 20.07.79-DE-929486
6 (29.01.81) C02f-01/02 F26b-03/02
79 as 929486 (17pp39)
n uses a first tank in which the slurry is heated by flue gases an oil-fired steam boiler, while the produced superheated rises through the tank and carries the solids of the slurry in er form to a cyclone. The latent heat of a part of the steam g the first tank isused to heat the second tank, while the flue from the first are made to rise up through the second tank, to the solids in powder form to a second cyclone.
arked improvement in the thermal efficiency is obtd.

★ D15 08010 D/06 ★DE 3024-473
- quality measuring device - with pump and sensors in rsed box joined by umbilical cord to land station
LECTRICITE DE FRANCE 10.07.79-FR-017861
6 S03 (S02) (29.01.81) G01d-21/02 G01k-13 G01n-01/14 G01n-/18
30 as 024473 (17pp39)
e to measure the quality of water taken from rivers or ries, specially for use in nuclear power stations, includes a ith a water inlet and outlet, a pump and all sensors for the - paramters (dissolved oxygen concentration, pH-value, activity, temp.). A cable supplies the power for the immersed nd transmits the readings to the control station. A hose also ies compressed air or detergents to keep the piping and sensors

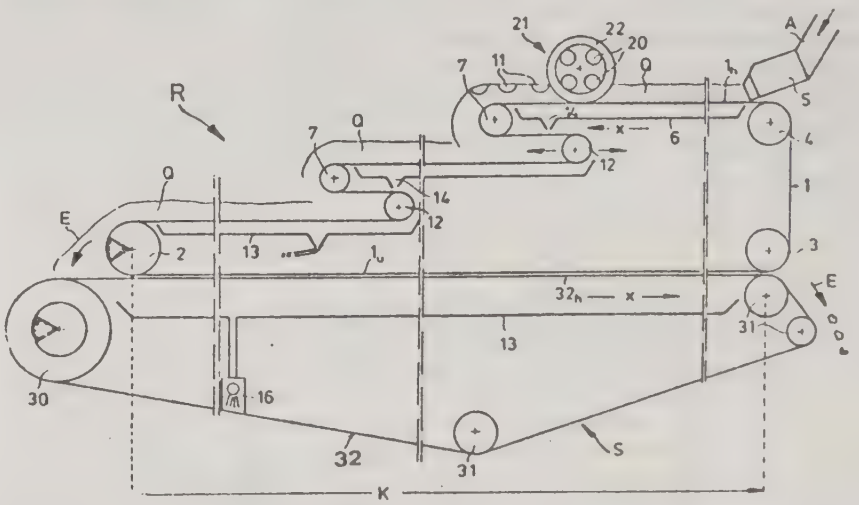
edom from incrustation ensures a high functional reliability. It des constant supervision.



NITT D15 52571 Y/30 =DS 2700-575
Nontacky acrylamide (co)polymer hydrogels - prepd. from monomer mixts. contg. polyethylene glycol by soln. polymerisation in water
NITTO CHEM IND KK (MITR) 17.12.76-JP-150847 (09.01.76-JP-001599)
*A14 F09 +P73 (A25 A91 A97) (29.01.81) *DE2700-575 C08f-02/04 C08f-20/56*
07.01.77 as 700575 (5pp481)
Hydrogels of H2O-soluble (co)polymers of acrylamide (I), having reduced tackiness, are produced by radical polymerisation of an 18 wt.% or more aq. soln. (II) of (I) or of a monomer mixt. comprising essentially (I).
The polymerisation is effected in the presence of 0.05-10 wt.%, based on the wt. of (II), of polyethylene glycol having a mean mol. wt. of 1000 to 20000.(DS)

IDEK D15 23623 A/13 =DS 2741-486
Copolymer membranes for oil-water sepn. - of (meth)acrylonitrile with (meth)acrylic acid or maleic acid or anhydride
IDEMITSU KOSAN KK 13.10.76-JP-121910 (17.09.76-JP-110762)
*A88 J01 (A14) (29.01.81) *DE2741-486 B01d-13/04 +B01d-31*
15.09.77 as 741486 (+24.9.76-JP-113602) (4pp481)
Sepn. membrane (I) comprises a random copolymer (II) comprising 20-90 wt.% of units of acrylonitrile and/or methacrylonitrile, as monomer component (A), and 10-80 wt.% of units of maleic acid and/or maleic anhydride, as monomer component (B). (II) is produced by continuous or discontinuous addn. of (A) to the reaction system (III) such that the equation (I) is satisfied, in which X is wt. percent of (A) in (II) and Y is the wt. percent of (A), based on the total wt. of monomers, in (III). Pref. up to 40 wt.% of (A) are replaced by one or more of methyl acrylate, ethyl acrylate, propyl acrylate, butyl acrylate, methyl methacrylate, ethyl methacrylate, propyl methacrylate, butyl methacrylate, acrylamide, methacrylamide, styrene, butadiene and isoprene.
(I) is useful for sepg. oil-water mixts.(DS)

KLEI- D15 45271 C/26 =DS 2854-168
Endless belt filter for sludge dewater - with Z/shaped loop in top strand and V/shaped press plunger
KLEIN A KG 15.12.78-DE-854168
*J01 +P71 (29.01.81) *DE2854-168 B01d-33/04*
15.12.78 as 854168 (6pp39)
Pressurised endless belt screen for the continuous dewatering of a suspension, esp. sludge from sewage treatment plants, consists of a lower endless belt, guided in the shape of a flat inverted triangle. Its top strand acts as the lower boundary for the sludge cake.
The upper endless belt which forms with its bottom strand the upper boundary for the cake, has a top strand which is guided in two or three steps, each step consisting of a straight straining section and an underslung section around two pulleys.
This increases the efficiency of the straining sections which precede the belt press screening operation, without increasing the cost by suction chests. (DS).



ALKU D15 02330 B/02 =EP G000-214
Solid carbon-contg. material with metal ion sorption capacity - obtd. by thermal and alkali treatment of carbonaceous material and sulphur
AKZO NV 22.06.77-NL-006879
*A35 E36 J01 (28.01.81) *EP-----214 B01j-20/20 C01b-31/12 C02f-01/28*
09.06.78 as 200033 (5pp974) (E) No-Citns. E(BE DE FR GB NL)
Solid carbon-contg. materials having a sorption capacity for metal ions are prepd. by mixing a carbon-contg. starting material with sulphur and heating the mixt. The heating is to 120-500 deg.C. and the heated mixt. is then treated with an aq. soln. of an alkali metal

hydroxide at not more than 200 deg.C. to separate the prod. and then washed free of the alkaline treating soln.

Pref. the aq. soln. also contains an alkali metal suphide. Pref. the starting material is subjected to treatment with H2SO4 or oleum, or heated in the presence of air or another 02- contg. gas, either before or after the thermal treatment.

Prods. are of low cost due to the simplicity of the prodn. process.

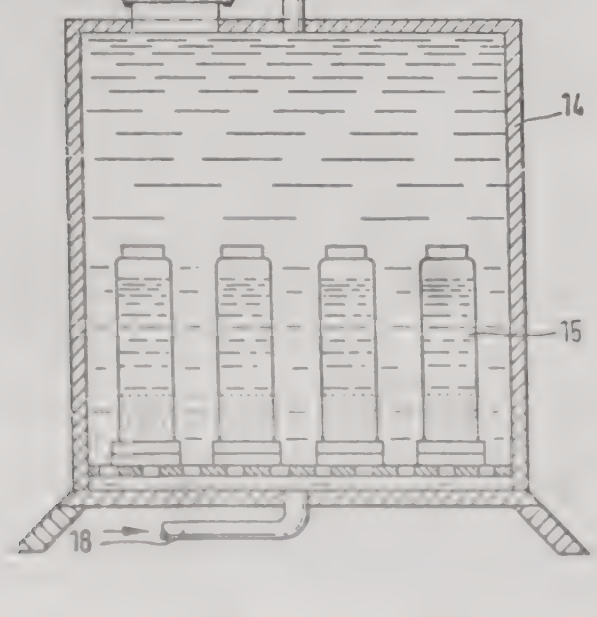
HYDR- D15 91346 A/50 #EP --22-770
Treatment of sewage prior to sea discharge - by removal of large particles and coagulation of suspended solids
HYDROTECHNIC CORP 05.05.77-US-793846 (17.10.78-EP-900877)
*E37 (28.01.81) *US4128-477 + C02f-01/72*
17.10.78 as 900877 E(CH DE FR GB LU SE)
(WP8000832)

WEBE- D15 41509 C/24 =EP --22-809
Biological purificn. of waste water in open tank - in which liq. is circulated through passages lined with mature sludge
WEBER W ING-GMBH 16.01.79-DE-901509
*(28.01.81) *BE-881-188 C02f-03/06*
16.01.80 as 900152 E(FR)
(WP8001484)

MIDW- D15 56873 C/32 =EP --22-827
Reverse osmosis membrane prepn. for water desalination - by coating support with polyfunctional secondary amine and reacting with polyfunctional acid halide
MIDWEST RES INST 10.01.79-US-002396
*A88 J01 (28.01.81) *WP8001-464 B01d-13 B01d-39 B29d-07/20 C08c-19/20 C08g-69/42*
10.01.80 as 900226 E(AT CH DE FR GB LU NL SE)
(WP8000013)

PEUS/ D15 43314 C/25 =EP --22-839
Effluent treatment of electroplating baths - to remove cyanide, by adding a reagent to ppte. insoluble cyanide
PEUSER M F X 29.01.79-BR-000702
*J01 M11 (28.01.81) *BE-881-417 C01c-03/08 C02f-01/58*
18.01.80 as 900266 E(FR)
(WP8001563)

HOEL- ★ D15 08152 D/06 ★EP --23-040
Disinfecting flowing media with diffusible gas generating substance - placed in internal container having gas diffusible plastic foil sidewall
HOELZLE & CHELIUS K 23.07.79-DE-929813
A88 E36 P34 + Q31 (D16 D22) (28.01.81) A23l-03/34 A611-02/20 A611-09/ B65b-55/10 C02f-01/76*
18.07.80 as 104241 (22pp200) (G) FR2230592 US3647523 FR-814972 GB1233418 FR2345393 CA-965699 US3412935 E(AT BE CH DE FR GB IT LI LU NL SE)
An appts. is claimed for disinfecting flowable media, esp. water or air, with a substance, (A), which generates a disinfecting gas on adding an activator, esp. an aq. soln. The substance, (A), is present in a container, (15), having at least one side wall of a plastic foil allowing gas diffusion while simultaneously retaining the residual prod. of substance (A), including its impurities. At least the external side of the plastic foil is in contact with the flowable medium to be disinfected..



The appts. can be used (i) for sterilising small amts. of dri water, e.g. in disaster areas, (ii) disinfecting water in s softeners, (iii) disinfecting sanitary installations, (iv) inhi fermentation in wooden wine casks, using an SO2- gener material, (v) bottle-, milk churn- and glass- rinsing plant, (drinking water storage tanks.

The residual prod. and impurities of (A) do not come into co with the material to be disinfected, therefore (A) need not be and their residual prods. can have undesirable or toxic props.

BRPE ★ D15 08175 D/06 ★EP --2
Crosslinking functionalised polymer in presence of e.g. oil - for polymer network contg. encapsulated oil and used to clea spillage
BRITISH PETROLEUM LTD 26.06.79-GB-022248
A97 H03 Q67 (A18) (28.01.81) C02f-01/68 C08f-253 C08f-279/02 03/24 C08k-03/32 F16l-55/10
16.06.80 as 302015 (28pp966) (E) US3718445 US3869385 US346 US3816359 GB-723456 DE1026900 E(BE DE FR GB IT NL SE)
Crosslinking of a functionalised polymer (I) in the presenc organic material (II), esp. oil, comprises reacting (I), miscible (II), with a crosslinking agent, also miscible with (II) and co complementary functional gps., to form a 3-D polymer netw contg. encapsulated (I).

Also claimed is a two-pack compsn. comprising (I) in one pack the crosslinkinq agent in the other..

Mixing of (I) and the crosslinking agent forms a gel which is u for recovering oil spills on sea or land, treating organic wastes, preventing leakage of oil from tanks or pipelines.

RTEC ★ D15 08192 D/06 ★EP --23-
Removal of halogenated organic contaminant from liquid - usin chemical filter which selectively absorbs the contaminant
RTE CORP 18.07.79-US-058454
A88 J01 X12 (28.01.81) B01d-15 H01f-27/10
10.07.80 as 302331 (10pp50) (E) US4124834 US3429104 E(AT BE CH FR GB IT LI LU NL SE)
Halogenated organic contaminant is removed from a liq contained in a vessel by placing in the vessel a chemical filter medium capable of selectively absorbing the contaminant w minimum interaction with the liquid, and allowing the liquid communicate continuously with medium..

Particularly in removal of polychlorinated biphenyls (PCB) fr naphthenic oil in transformers or glycol water solutions in h exchangers, where these liquids are being used to replace to PCB's. Provides a simple method of removing toxic PCB's fr liquids.

DEGM ★ D15 08245 D/06 ★FR 2453-
Sludge extn. from decanting tank with rotary bridge - via concent ring of suction inlets which avoid sludge agitation
DEGREMONT SA 11.04.79-FR-009132
(12.12.80) C02f-11
11.04.79 as 009132 (8pp448)
In the system sludge is sucked from the bottom of the tank int receiver carried by the bridge. The suction inlets which collect sludge are arranged on the circumference of a circle concentric w the tank. The dia. of the suction inlets circle is pref. equal to ab one third of the dia. of the tank.

The suction inlets are pref. holes in the underside of an annu pipe near the base of the tank, fixed to the bridge and with risers the sludge receiver. Alternatively, a ring of risers arranged arou and fixed to a central disc can suck directly into the receiver.

Since the suction inlets rotate about the centre of the tank a follow each other in an unbroken sequence there is a minimum disturbance of settled sludge. This results in better clarification treated water.

KARH ★ D15 08256 D/06 ★FR 2453-
Water recycle system for pulp processing - to reduce waste liq volumes and oxygen make up SE 10. 11.80)
KARLHOLMS AB 10.04.79-SE-003177
F09 (12.12.80) B29j-05 D21b D21c-09/18 D21f-01/66 D21j
10.04.80 as 008042 (8pp515)
In a process for separating soluble liqueous material from cellulo pulp passing from a defibrillater and a washer to a collecting ta via a drier. the washings from the drier are recycled so that t liquid is recycled via the defibrillator and residual steam is recycl via the boiler generating steam for a feedstock preheater.

Used for paper making where waste water must satisfy an oxyg cloud point better than DB07. Reduces the quantity and degree oxygen depletion (and re-aeration treatment necessary) of wa discharged to drain. Use of water already contg. liqueous sa suppresses the solution of wood during defibrillation, raising pulp/wood yield for the process. Water discharge rates may

from 27-30 to 6.5-7 kg per metric tonne fibres.

D15 84220 Y/47 = GB 1583-881
ion and clarification of sewage - using a finely divided ion-adsorption material having a thin hydroxylated surface
MONWEALTH SCIENT ORG 25.03.77-AU-009576 (03.05.76-05798)
*.81) *NL7704-854 + C02f-01/52*
as 018568 (15pp931)
clarified by removing suspended impurities and coloured ces it contains by contacting with a particulate material sorb them.
articles removed have a size less than 10 microns, and have eated to produce a hydroxylated surface layer, having a zeta potential by the pH of the treated water. The pH used is hat range where colloidal matter in the water retains some e charge, thus the treated water may be sepd. from the nt/absorbent.
particulate material used is pref. gamma iron oxide, ite or a ferrite, and the hydroxylated layer is a water-le metal hydroxide gel.A rapid and better treatment is obtd. he conventional alum treatment, and is esp. used to rid water o-organisms e.g. bacteria, viruses and algne.

D15 42515 B/23 #GB 1583-990
tor for settling suspended solids in liquids - has series of l plates mounted in bundle
PEF 23.11.77-DE-752296 (23.11.77-GB-048759)
*(04.02.81) *DE2752-296 B01d-21/02*
as 048759 (7pp1376)
containing suspended solids is clarified by flowing upwardly n plates in at least two groups in a cylindrical or elipedic enclosure. The plates in each group are parallel to ther. The plates of one group form an angle different from 90 ith a vertical plant containing the inclination axis, and the of the other group form an external angle of 20 to 75 deg. with ne. The solids deposit on the plates and slide downwardly.
. is improved and accelerated.

D15 20467 A/11 = GB 1583-996
vation and transport of live fish and shell fish - in small amt. er which is processed to remove waste prods. then recycled
AHI KASEI KOGYO K 20.07.76-JP-086361 (08.06.76-JP-066814)
*(04.02.81) *J53011-800 A01k-63/02*
7 as 023664 (15pp931)
ic animals at a density more than 200 kg. per cub.m are kept or a long time in environmental water by controlling the water at the lowest possible range for animal existence.
ammonia cpds. in the water are controlled so a total concn. an 20 ppm, and the water-soluble organic cpds. controlled to an 150 ppm. The carbonic acid radical content is controlled to n. of less than 1,000 ppm, and the dissolved O2 regulated to 3 r more.
process is esp. used to preserve fish, shell fish, crustaceans nolluscs in a small container at low cost without needing to y fresh water.

D15 29538 A/16 = GB 1584-042
ated sludge treatment of organic effluent - with sludge concn. ration vessel maintained at specific value related to COD ing rate
ORINAGA ENG CO LTD 18.08.76-JP-098463
*.02.81) *J53025-060 + C02f-03/12*
77 as 034553 (9pp931)
nic waste water is treated in an aeration tank by adjusting the lved O2 content in the tank to 1.5 ppm-saturation, and olling the temp. of the water to 4-40 deg.C for a residence time ays or more.
e rate of introduction of COD into the tank is regulated with the ured temp. and ATP content of the water, and the activated e content maintained as constant. Pref. the O2 content is 1.5-4.5 and the temp. 15-40 deg.C and residence 10 days or more if the on:nitrogen content ratio is 5 or more (or 2.5-5 at 20-40 deg.C for ys or more).
e process is esp. used for treating water contg. a large amt. of genous constituents, without producing excess sludge.

D15 26959 A/15 = GB 1584-065
effluent treatment in combined biological reactor and clarifier - g dissolved oxygen and doubling capacity for plant size
ANADIAN LIQUID AIR (AIRL) 07.10.76-US-730478
*04.02.81) *BE-859-489 + C02f-03/02*
0.77 as 041898 (10pp931)
te water is biologically treated by a continuous process in a le reactor vessel contg. a lower biological reaction zone and an er clarification zone.

The treatment comprises introducing an oxygenated mixed liquor obtd. by oxygenating a mixt. of fresh waste water and partially - treated liq. from the reaction zone into the lower part of the vessel. The mixed liquor in the reaction zone contains aerobic microorganisms able to convert the waste into water-insoluble solids, CO2 and other prods. The contents of the reaction zone are agitated and circulated to maintain some of the solids in suspension, but allowed to settle in the clarification zone which is free from agitation.

A concn. of O2 is maintained in the reaction zone to maintain the demand of the microorganisms, but less than the concn. of O2 in the mixed liquor to prevent release of bubbles. The clarified liq. may be withdrawn from the upper part of the zone.

TEIJ D15 08632 A/05 = GB 1584-107
Fibre material for breaking of emulsions - consists of vinyl aromatic fibres contg. both hydrophobic and hydrophilic gps.
TEIJIN KK 19.07.76-JP-084938 (19.07.76-JP-084937)
*A97 F01 J01 (A13) (04.02.81) *DE2731-493 C02f-01/40 C08f-08/32*
13.07.77 as 029442 (19pp974)
Emulsion-breaking fibrous materials (1) are prepd. by chemical modification of insol. fibrous material (2) obtd. by crosslinking with a sulphonyl gp. a fibrous material (3)formed from aromatic monovinyl polymer. (1) contains, per 100 aromatic nuclear structural units, (a) 40-95 hydrophobic gps. of formula -SO2NHR' (I') as part of units -CH2.CR(X.SOrNHR')- (I) and (b) 1-30 hydrophilic gps. of formula SO2A (II') as part of units -CH2CR(X.SO2A)- (II). R' is 2-20C hydrocarbyl. X is phenylene. R is H or CH3. A is Cl, OH, NH2, NHNH2, NHCH2CH2OH, N(CH2CH2OH)2,NHCH3 or N(CH3)2.
Prods. are used for treating waste ater contg. animal fats or plant and/or mineral oils.

AGEN ★ D15 08377 D/06 ★J5 5090-856
BOD determn. appts. has carbon di-oxide trap - and manometer contg. electric contact and conductive liq. to give an ohmic indication of bod
AGENCY OF IND SCI TECH 28.12.78-JP-164192
J04 (09.07.80) G01n-33/18
8..2..8 as 64192 7pp173)
Appts. is composed of (a) incubating bottle which is connected through (b) CO2 gas absorbing trap to (c) a U-shaped liq.-column manometer of which lower part is filled with conductive liquid (e.g. Hg, salt soln.,etc), (d) resistance wire (or conductive film) partially immersed in the liq. column of the manometer, and (e) ohmmeter for measuring changes of resistance proportional to the rising and falling of the liq. column. (b) pref. contains NaOH or KOH.
The equipment is used for BOD determn. in environmental waters, industrial waste waters, etc. The equipment permits continuous observation of O2 consumption during incubation.

MITQ ★ D15 08600 D/06 ★J5 5154-305
Recovering bromine from waste water contg. bromide ion - by aerating with gas contg. ozone
MITSUBISHI ELECTRIC CORP 21.05.79-JP-062317
E36 (01.12.80) C01b-07/09 C02f-01/78
21.05.79 as 052317 (6pp55)
An aq. soln. contg. bromine ion is aerated to gas contg. ozone. The bromide ion is then sepd. from the aq. soln. and the bromine gas or hypobromous anhydride is recovered from the said gas by chemical or physical means. The aq. soln. contg. bromide ion is pref. adjusted to pH of at most 10.5, and kept at at least 30 deg.C.
This process is simple and is of high efficiency. It is esp. useful for treating the waste water from foul smelling gas treatment process using a hypobromite aq. soln.

UBEI ★ D15 08853 D/06 ★J5 5155-702
Evaporator for concn. of waste water treatment sludge - has heated spiral outer tube from which sludge is sprayed tangentially into inner chamber
UBE INDUSTRIES KK 24.05.79-JP-063215
(04.12.80) B01d-01/22 C02f-01/08 C02f-11/12
24.05.79 as 063215 (6pp26)
The entire evaporator chamber is housed by an outer tube leaving a space, where a spirally formed pre-concentrating pipe is disposed to preconcentrate the sludge. Its upper end is inserted into the chamber in its tangential direction, so that the sludge is sprayed to form a vortical flow in the chamber, resulting in sepn. into a gas- and liq.-phase fluids. The pipe is heated by a heating medium contained in the outer tube.
An organic sludge from a waste water treatment plant having high viscosity (several hundred cps) can be quickly conc. to allow easy drying for burning.

SUMB ★ D15 08854 D/06 ★J5 5155-703
Semipermeable membrane comprising polysulphone resin and epoxy resin - prepd. by dissolving the resins in polar solvent, forming soln. into film or tube and soaking in water
SUMITOMO BAKELITE KK 24.05.79-JP-063245
A88 J01 (04.12.80) B01d-13 C08j-05/18
24.05.79 as 063245 (3pp42)
A semipermeable membrane (I) composed of a mixture of polysulfone resin (II) and epoxy resin (III) is new. (I) is produced by (i) dissolving (II) and (III) in a polar organic solvent (IV), (ii) spreading the solution to make a film or tube, and (iii) soaking it in water.
Addn. of (III) to (II)-solution makes it possible to increase the mechanical strength of (I) as well as cut-off molecular size and water-permeating velocity. The amount of (III) added is pref. 5-20 wt.% per that of (II).

JAPG ★ D15 08855 D/06 ★J5 5155-704
Semipermeable membrane hollow fibre - of vinyl halide and/or vinylidene halide polymer semipermeable only at outer surface
NIPPON ZEON KK 23.05.79-JP-063549
A88 J01 (04.12.80) B01d-13 C08j-09/28 D01d-05/24
23.05.79 as 063549 (5pp42)
New hollow fibre (I) is composed of vinyl halide polymer (II) and/or vinylidene halide polymer (III), that has semipermeability only at the outer surface. (I) is produced by extruding a solution (IV) contg. (II) and/or (III) from a ring-shaped slit, and injecting a solution (V) contg. the below described cpds. into the hollow part of the extruded fibre, where (V) contains more than 25% of a compound (VI) being miscible with the solvent of (IV) and not dissolving (II) and (III), and less than 25% of water.
As (I) has semipermeable layer only at the outer surface, water-permeation velocity of (I) is high.

DAIS- ★ D15 08856 D/06 ★J5 5155-705
Agent for cleaning tubular reverse osmosis membrane - comprises cylindrically shaped, porous polyvinyl formal resin granules for increased cleaning efficiency
DAISHO KAGAKU KOGYO 21.05.79-JP-063067
A88 J01 (04.12.80) B01d-13
21.05.79 as 063067 (3pp42)
A cylindrically shaped, polyvinyl formal resin granule (I) is new. (I) is used for washing inside of tubular reverse-osmosis (II). (II) is used for reverse-osmosis treatment of waste water, chemical reagent, food, etc., and scale forms on the inner surface of (II), resulting in decrease in water-permeating velocity.
Cylindrically shaped (I) has higher effect for removal of the scale than that of the spherical (I). Since the surface-area of the present (I) contacts with the inner surface of the membrane is larger than that of spherical (I), the life time can be prolonged by more than 20%.

KURO/ ★ D15 08857 D/06 ★J5 5155-707
Domestic waste water filter - comprising tubular tank connected to water feed pipe and having porous plate supporting adsorbent bed at bottom
KUROSAWA Y 24.05.79-JP-063239
(04.12.80) B01d-23/10
24.05.79 as 063239 (4pp26)
Filter comprises a tubular tank connected to a water feed pipe at the upper face and porous plate located in the bottom of the tank charged with an adsorbent forming a bed supported on the plate. The object is to easily regenerate the adsorbent and associated inserts in the tank.
A mat is laid on the upper face of the adsorbent bed, crushed gravel is charged on the mat, and another upper mat is laid on the upper face of the gravel bed to form a filter chamber. A filtrate drain pipe is vertically inserted into the tank, passing through the porous plate.

NAKA- ★ D15 08858 D/06 ★J5 5155-708
Industrial effluent filter press - comprising filter frames, cloths and plates arranged alternately between end press boards
NAKAGAWA KAGAKU SOC 21.05.79-JP-062537
(04.12.80) B01d-25/12
21.05.79 as 062537 (9pp26)
A meshed sheet is inserted between each filter cloth and adjacent filter plate, where sludge cake deposites, and an air blow port is provided to blow a compressed air onto the filter cloth to clean the filter cloth, while washing liq. is applied to it. Part of the inside edge of each filter frame tapers towards its central area. The object is to continuously filter water having a high concn. of suspended solids and avoid increase of the filter resistance.

MITQ ★ D15 08859 D/06 ★J5 [illegible]
Sludge dewatering device for waste water treatment plant - [illegible] redn. in filtering speed due to dense sludge layer forma[illegible] avoided
MITSUBISHI ELECTRIC CORP 22.05.79-JP-064419
(04.12.80) B01d-29/04 C02f-11/12
22.05.79 as 064419 (3pp26)
Device comprises a cylindrical tank and cylindrical filter co[illegible] disposed in the tank so that the outer surface of the filter is ex[illegible] to the sludge contained in the tank. As a result a dense sludge contg. solid grains is formed on the outer surface to increa[illegible] filter resistance.
Reduction of the filtering speed due to increase in filter resis[illegible] is avoided by use of a separator disposed in the filter so as[illegible] removable relative to the filter and to form a pressure redu[illegible] chamber, into which compressed air is fed to break the sludge l[illegible]

HITF ★ D15 08861 D/06 ★J5 51[illegible]
Device for removing solids from slurry from rivers, harbours, [illegible] includes horizontally mounted cylindrical rotor which is gas-ti[illegible] sealed
HITACHI SHIPBLD ENGG KK(TOAK-) 22.05.79-JP-063611
(04.12.80) B01d-35/02
22.05.79 as 063611 (5pp26)
Device comprises a cylindrical rotator mounted on a horiz[illegible] shaft, and a pair of end plates to close both ends of the ro[illegible] through gas-tight sealing members. The rotator is connected [illegible] slurry feeder. The slurry inlet and outlets are formed at the [illegible] plates. A net for trapping the solids fed into the rotator is at the o[illegible] side. The rotator is partitioned into two chambers; one connecte[illegible] both inlet and outlet. A port is formed at the end plate at the inlet [illegible] to withdraw solid matter.
Device continuously removes large-sized solids such as stones, [illegible] machine parts, resin vessels, sheets, wood chips, etc. from [illegible] slurry, without stopping the pump for draining the slurry from [illegible] rotator to slurry treating equipment.

HITF ★ D15 08862 D/06 ★J5 5155[illegible]
Appts. for removing solids from slurry drain from rivers seas e[illegible] includes partitioned rotary tank mounted on horizontal shaft
HITACHI SHIPBLD ENGG KK 22.05.79-JP-063612
(04.12.80) B01d-35/02
22.05.79 as 063612 (5pp26)
The slurry contains large size solid matters, such as stones, bott[illegible] resin vessels, wood chips, etc. which must be removed to av[illegible] clogging of piping in slurry treating equipment.
The appts. comprises a rotary tank mounted on a horizontal sh[illegible] A slurry suction pipe is connected to the inlet of the tank and [illegible] outlet is connected the sludge pump. The object is to rem[illegible] continuously large size matters, without stopping the pump. [illegible] interior of the rotator is partitioned into two chambers: [illegible] connected to the inlet and outlet, both formed at end plates of [illegible] rotator, and each has an opening for taking out the solid mat[illegible] collected in the rotator.

ISHI- ★ D15 08863 D/06 ★J5 5155-[illegible]
Filter cloth for sludge filter press - obtd. by spinning synthetic fil[illegible] yarns to form filaments and braiding to form filter cloth
ISHIGAKI KIKO KK 23.05.79-JP-064791
(04.12.80) B01d-39/08
23.05.79 as 064791 (4pp26)
A filter cloth in a filter for treating sludge, such as filter press, [illegible] claimed. The filter is usable for treating dirty water such as sewa[illegible] and paper making waste water. The object is to avoid clogging a[illegible] eliminate the possibility of wrinking.
The is in the structure of the cloth. Synthetic fibre yarns are sp[illegible] to form filaments, and they are braided to form a filter cloth. E[illegible]th or both warp and weft consist of spun yarns of monofilaments a[illegible] multifilaments. The cloth is shaped like a long band and folded in[illegible] two layers. The ends of the band are sewed to form an endless ban[illegible] and an upper and lower support bars are passed through the banc[illegible] both end loops to support the entire cloth.

MIYA/ ★ D15 08880 D/06 ★J5 5155-[illegible]
Prodn. of compsn. for removing arsenic ions from water - by mix[illegible] titanium tetra:chloride with cold water adding alkaline cpd. to for[illegible] ppte. mixing ppte. with magnesium or calcium hydroxide etc.
MIYAMOTO O 22.05.79-JP-062945
E32 (04.12.80) B01j-20/06 C02f-01/28
22.05.79 as 062945 (4pp42)
Method comprises (1) mixing TiCl4 with chilled water, (2) adjust[illegible] pH of mixt. to about 2 with the addition of alkaline cpd. (II), to fo[illegible] ppte, (3) mixing Mg(OH)2 or Ca(OH)2 with the ppte. (10-30wt.[illegible] Mg(OH)2 or Ca(OH)2 per TiO2 in the ppte), (4) washing the mixt. w[illegible] water, (5) calcining at 100-500 deg.C the ppte. collected by filtrat[illegible]

boiling the calcined mass in aq. NH4Cl soln.
osn. is used for removal of arsenic from hot water or water
ted from terrestrial heat-electric power generating plant. (I)
s both 3 valent and 5 valent arsenic ions.

★ D15 08889 D/06 ★J5 5155-777
obic digestion of cellulose-contg. organic waste - includes
ng out liquefying in presence of cellulose
RES CENT KK 22.05.79-JP-062916
(04.12.80) B09b-03 C02f-03/28 C02f-11/04
9 as 062916 (3pp34)
erobic digesting treatment of cellulose-contg. organic wastes
bjecting separately to liquefying and gasifying steps, the
vement comprises carrying-out the liquefying procedure in
esence of cellulose, so that it becomes possible to apply
obic digestion process even on treatment of organic wastes
g high cellulose content. Methane gas yield is improved with
ased amt. of residual sludge.
anaerobic liquefying reaction is carried-out at 30-60 deg.C and
f 4-6 in the presence of liquefying bacteria and cellulose while
neutralising agent, e.g. NaOH and Ca(OH)2 etc. to adjust its pH
above range. The organic wastes to be treated are, e.g. surplus
ted sludge, garbage, excrements of domestic animals,
nts from fermentation or food-processing plant or from pulp
lant, etc.
easy to transport or to stir a starting slurry material due to the
hat cellulose contained in the slurry material is converted
s.

- ★ D15 08890 D/06 ★J5 5155-778
robically treating cellulose-contg. organic waste - by first
ically treating in presence of liquefying bacteria and cellulase
O RES CENT KK 22.05.79-JP-062918
3 (04.12.80) B09b-03 C02f-03/28
79 as 062918 (4pp34)
ose-contg. organic waste is digested and gasified
obically by first treating anaerobically in the presence of
ying bacteria and cellulose at 30-60 deg.C and pH 4-6. Degraded
obtd. is then treated with gasifying bacteria anaerobically.
ulose-producing bacteria is then cultured in a medium
osed mainly of solid residue and/or cellulose-containing
ic waste obtd. by solid-liq. sepn. from the digested slurry obtd.
duce cellulose which is used in the 1st step.
erobic digestion process can be effected even on organic waste
g high cellulose content, and methane gas yield is improved
ecreased amt. of digested sludge.

★ D15 08891 D/06 ★J5 5155-785
ing borofluoride-contg. waste water - by adding alkali(ne
) metal hydroxide and effecting evapn.-concn.
TACHI KK 23.05.79-JP-062599
86 (04.12.80) C02f-01/04 C02f-09
79 as 062599 (3pp34)
e evapn. concn. treatment of borofluoride-contg. waste water,
improvement comprises adding alkali(ne earth) metal
oxide, esp. NaOH or KOH, to adjust its pH to greater than 8 to
hydroxides which are then removed, and effecting evapn.,
. treatment.
apn. concn. efficiency is kept high without any generation of
in conc. liquor or scattering of fluorine component in open air.
example, NaOH was added to plating effluent contg. Pb
luoride and Sn borofluoride (F concn. 8,000 ppm; pH 1.3) to
t its pH to 9, after which the effluent thus treated was removed
settled hydroxides and conc. by evapn. until its vol. became
f the initial vol.

S/ ★ D15 08892 D/06 ★J5 5155-786
lourising dyeing effluent - by adding aluminium (hydr)oxide at
ove 9 and neutralising with acid
ATSUKAWA H 24.05.79-JP-063277
4.12.80) C02f-01/28
79 as 063277 (4pp34)
ng effluent is clarified effectively and rapidly esp. in a closed
m by adding Al(OH)3 and/or Al2O3 at pH greater than 9, and
equently neutralising it with acid. A water-insoluble Ca salt, e.g.
4, CaCO3, Ca oxalate, Ca phosphate and CaF2 etc. may be used
mbination with Al(OH)3 and/or Al2O3 to accelerate settling rate
diments in large extent.
e sediments may be recycled for the decolorisation of the
ent opt. after heating to 100-450 deg.C. The molar ratio between
H)3 (and/or Al2O3) and the water- insoluble Ca salt is pref. 3/1 -
Alkali-adjustment and neutralising procedures may be carried
epeatedly and continuously to achieve rapid clarification. Over
of the dyestuff in the effluent is removed, and the process is carried out in a closed system by recycling the resulted sediment to the clarification step.

NIKA- ★ D15 08893 D/06 ★J5 5155-789
Removing phosphorus components from effluent - by adding iron chloride or sulphide coagulant, mechanically dewatering and adding (magnesian) lime
NIPPON KANKYO SEIBI 23.05.79-JP-063657
C04 (04.12.80) C02f-01/58 C02f-11/14
23.05.79 as 063657 (3pp34)
Phosphorus components, e.g. phosphate etc. are effectively removed from effluent by adding coagulant Fe chloride or sulphide in amt. of at least 5 times (as Fe) as that of the phosphorus components (as P) to settle sticky sediments which are then dewatered by conventional mechanical dewatering means, e.g. centrifugation etc. to reduce its water content to 85%, then adding to the dewatered cake CaO, Ca(OH)2 or Mg-lime in amt. 30-40wt. pts. per 100wt. pts. of the dewatered cake, followed by thoroughly mixing together.
By this process, the dewatered cake is converted to sand-like dried powder having water content less than 60% which is suitable for use as soil-improving agent. Used to improve acidic soil due to its comparative strong basicity, and the alkali matter contained therein is gradually reacted with CO2 existing in air and converted to neutral carbonate, so that treated soil suffers no damage.

DOWA ★ D15 08894 D/06 ★J5 5155-790
Neutralisation of acidic effluent with granular limestone - packed in funnel shaped reaction vessel with limestone maintained in fluidised state to suppress suspended matter formation
DOWA MINING CO LTD 23.05.79-JP-063589
(04.12.80) C02f-01/66
23.05.79 as 063589 (4pp34)
Acidic effluent is neutralised by introducing it into a funnel shaped reaction vessel packed with granular limestone from the under part while maintaining the granular limestone under fluidised state at the under part of the vessel. The rising flow rate of the effluent is greater than 20 cm/min. at the under fluidised region, and less than 9 cm/min at the upper part.
The neutralisation reaction proceeds to such extent that granular limestone is completely reacted without any unreacted portion remaining at the inner part of the granules, thereby generation of suspended matters is completely suppressed. The acidic effluent and limestone are reacted countercurrently, and more fine limestone liable to cause clogging falls to the under part to form fluidised layer which is reacted until completely disappeared.

NIPS ★ D15 08895 D/06 ★J5 5155-792
Pelletised water sterilising compsn. - comprises tri:chlorinated isocyanuric acid and alkali(ne earth) metal salt of CMC
NIPPON SODA KK 22.05.79-JP-062180
(04.12.80) C02f-01/76
22.05.79 as 062180 (3pp34)
A pelletised water-treating compsn exhibiting excellent sterilising effect within short period in swimming pools etc comprises trichlorinated isocyanuric acid, and alkali or alkaline earth metal salt of CMC. The compsn. is rapidly collapsed into granules or powder in water. The alkali or alkaline earth metal salt of CMC serves as collapsing agent, and the amt. of the CMC salt to be used is pref 0.4-0.5wt%.
If necessary it may be further used 1-10% of boric acid etc. as shaping assistant or NaCl and Na2SO4 as filler. When CMC is used in the place of the CMC salt, collapsing effect is not obtd, thereby it is necessary to further add collapsing agent in this case. This pelletised compn. is not only applicable for swimming pool but also for lakes, swamps and fire-proofing water storing pool etc.

AGEN ★ D15 08896 D/06 ★J5 5155-797
Preventing release of nitrous oxide during denitrification - by passing nitrous oxide into hydrogen donor and supplying to denitrification vessel
AGENCY OF IND SCI TECH 24.05.79-JP-064227
C04 (04.12.80) C02f-03/34
24.05.79 as 064227 (5pp34)

In biological dinitrification treatment of nitrogen cpds contg waste waters, the improvment comprises introducing N2O gas released in gas phase part of denitrification treating vessel into hydrogen donor, e.g. alcohols and alcohol- contg. waste water etc so as to be collected, and supplying the N2O gas-collected hydrogen donor to the denitrification vessel at which the gas is biologically reduced to N2 gas, thereby N2O gas release in open air is effectively prevented.
N2O is reduced to N2 by the action of NO2-reducing enzyme contained in denitrification bacteria, thereby N2O gas released in the gas phase part of the denitrification vessel until NO2-reducing

enzyme is introduced, is collected by the hydrogen donor, e.g. MeOH when it is washed. When N2O bearing MeOH is used as denitrification hydrogen donor N2O gas is released in the gas phase of the denitrification vessel and recollected by MeOH and concentrated, N2O gas is not released to open air.

EBAI ★ D15 08897 D/06 ★J5 5155-798
Treatment of organic waste water e.g. night soil - involves anaerobic fermentation in presence of activated sludge, then effecting biological denitrification
EBARA INFILCO KK 23.05.79-JP-063706
(04.12.80) C02f-03/34 C02f-09
23.05.79 as 063706 (6pp34)
Conc. organic waste water, e.g. night soil etc is treated to remove effectively P components, colouring matters and BOD components without using inorganic coagulant resulting in a large amt of inorganic sludge, e.g. alum and FeCl3 etc. as well as without any dilution, by introducing it into anaerobic fermentation region where the water is contacted with activated sludge under anaerobic state and bacteria contained in the sludge are accelerated in P-uptaking activity; sending the water thus treated to biological denitrification region where NO2-N and NO3-N contained in recirculating nitrified liquor are biologically reduced to N2, followed by introducing into nitrification region where NH4-N and BOD components remaining in outflow liquor from the denitrification region are oxidised to NO2-N and NO3-N and P up-take is carried-out, and solid-liquid sepn, eg by flotation or centrifguation; adding cationic polymer coagulant to a mixed liquor comprising surplus sludge and sepd water, coming from the solid-liquid sepn. region, followed by dewatering to separate into dewatered cake and sepd water which is then passed through a membrane, e.g. ultra-filteration membrane or microporous membrane etc and outflowed into rivers.

MITU D15 57554 V/32 = J8 1000-515
Salt water purification - by treatment with alkali carbonate or alkali hydroxide or both in presence of polymer flocculants
MITSUBISHI CHEM IND KK (MITS) 17.05.72-JP-048896
*A97 (08.01.81) *J49012-048 + C01d-03/16 C25b-15/08*
17.05.72 as 048896 (3pp)
A soln. of alkali metal chloride contg. Ca2(+) and/or Mg2(+) impurities is treated with alkali carbonate and/or alkali hydroxide in the presence of a polymer flocculation agent to purify the salt soln.
In an example, a soln. (for Cl2 prodn. by electrolysis) contg. MgO 93, CaO 206, and NaCl 304 g/l was treated with 2N Na2CO2, 25% NaOH 2 p.p.m. Hakutoran (Na polyacrylate-type flocculant), and 0.5 g/l sand to give water contg. 1 mg/l (based on CaO) impurity. Separan AP 30 (partially-hydrolysed polyacrylamide-type (polyacrylamide-type flocculant) was similarly used. (J49012048)

SUMO D15 08229 W/05 = J8 1000-539
Nonwoven synth fabrics for oil removal - contg polyolefin and ethylene-vinyl acetate copolymer
SUMITOMO CHEMICAL KK 25.10.72-JP-107435
*A94 F04 H05 (08.01.81) *J49066-968 + C09k-03/32 D04h-01/42*
25.10.72 as 107435 (6pp)
Nonwoven fabrics made from resin mixts. consisting of 50-99 wt. parts polyolefin and 1-50 wt. parts ethylene-vinyl acetate copolymer (viscosity index 0.5-1000, vinyl acetate content 5-45 wt.%) have high adsorptive capacity for oils and are durable to oils.
In an example, nonwoven fabrics made from a resin mixt. of 90 wt. parts boiling heptane-insol cryst. polypropylene and 10 wt. parts ethylene-vinyl acetate copolymer (viscosity index 500, vinyl acetate content 30 wt.%) adsorb fuel oil C 1480, fuel oil B 1300, fuel oil A 470, benzene 350, toluene 330, and xylene 340%, all based on the fabric wt. (J49066968)

TODE- D15 55913 A/31 = J8 1000-675
Fresh water prodn. from brine or sea water - by introducing liquefied natural gas into the brine etc. and melting the ice crystals obtd.
TODEN KANKYO ENG KK 10.12.76-JP-147826
*Q69 (09.01.81) *J53072-783 B01d-09 F17c-09/02*
10.12.76 as 147826 (3pp51)
The method comprises introducing liquefied natural gas into brine or sea water to obtain ice crystals, and melting the ice crystals to obtain fresh water.
Specifically liquefied natural gas was compressed with nitrogen of high pressure, and introduced from a tank of liquefied natural gas into sea water. Thus, sea water was frozen and the ice crystals sepd. from the sea water were melted to obtain fresh water.(J53072783)

NISN D15 39452 A/22 = J8 1001
Membrane for separating aq. colloidal solns. of suspensio comprising (co)polymer of acrylonitrile vinyl chloride and sty and vinyl pyrrolidone polymer
NISSHIN SPINNING KK 05.10.76-JP-118957
*A88 J01 (A13 A14) (12.01.81) *J53044-486 + B01d-13*
05.10.76 as 118957 (4pp42)
The membrane (I) is composed of (a) 97-55 wt.% of polymer copolymer of acrylonitrile, vinyl chloride and/or styrene and (b) wt.% of vinyl pyrrolidone polymer, e.g. PVP or vinylpyrrolido vinyl acetate copolymer.
(I) can be produced more easily than other ultra-filtra membranes, with uniform quality. Water can be filtered off usin at less than 0.5 kg/cm2. (Co)polymer in (a) is polyacrylonitr acrylonitrile-vinylchloride copolymer, PVC or styrene-butadi copolymer. Mol. wt. of polymer in (b) is 10,000-40,000. Film is ob from DMSO, DMA etc., and is 0.03-3 mm., e.g. (0.07-1 m thick.(J53044486)

MITO D15 62116 Y/35 = J8 1001-
Treating waste contg. heavy metals - by mixing active ferrite w the waste to prevent elution of the metals
MITSUBISHI HEAVY IND KK 16.01.76-JP-003154
*A35 E37 M11 + P43 (12.01.81) *J52086-974 + B09b-03*
16.01.76 as 003154 (3pp42)
Waste or discharge (I) contg. heavy metals (II), is treated by mix active ferrite (III) with (I), to prevent the elution of (II). (II) elu out from (I) can be adsorbed in (III), and (I) can be treated in so state.
(II) are Cr, Hg, Cd, Pd, As, Cu, Mn, Ni, Co and Be, and (I) industrial discharge, sludge of galvanising plant, waste plastics, e (III) is ferrite having ability to adsorb (II) and not the ferrite magnets. (III) is prepd. by mixing nitrites with Fe(OH)2 in water pH 8-12, or by controlling pH of the soln. contg. ferrous and fer salts in a ratio of Fe+2/Fe+3 of 1/1-1/2, to 8-9 with alkaline so (III) has crystal lattice defect for adsorption of (II), and has adsorption ability for (II) 10 power 3 - 10 power 4 times as that of ferrite for magnets. It has particle dia. of 0.03-0.07 microns, and stable in acidic or alkaline soln. (III) can not adsorb light metal, su as Na, K, Ca and Mg.(J52086974)

AGEN D15 39600 A/22 = J8 1001-
Purification of waste water - to remove colouring material and C components
AGENCY OF IND SCI TECH 05.10.76-JP-119614
*(12.01.81) *J53045-054 + B01j-20/34 C02f-01/28*
05.10.76 as 119614 (5pp34)
Process comprises (1) adding a powdered inorganic adsorber opt presence of a polymer coagulant, in an amt. of 1/10,000-1/1,000 tim by wt. adsorber, followed by agitation for 10-60 mins. at an agitat rate of 100-300 r.p.m. to adsorb the colouring material and the C components on the adsorber. (2) allowing the water to stand to pp the adsorber as a slurry layer on the bottom, and (3) discharging aq. upper layer.
Process further comprises removing (4) the under slurry lay recycling a portion of the slurry to the adsorption step (1), the amt the slurry to be recycled being 1-10 times by wt. adsorber to added, (5) dehydrating a remaining portion of the removed adsorb slurry, (6) reproducing the dehydrated adsorber by calcining at 5 700 deg.C for 10-30 mins. in the presence of 0-10 vol.% of O2 and for 30 mins. in the presence of 10-25 vol.% O2, and then (7) recycling t calcined reproduced adsorber to the adsorption step (1). (J53045054

NITV D15 58449 Y/33 = J8 1001-
Paper pulp waste liquor treatment - using alkaline lignin-contg. sc and coagulating lignin in liquor
NITTAN KK (NITT) 25.12.75-JP-154087
*F09 (12.01.81) *J52079-560 B01d-21/* + C02f-01/56*
25.12.75 as 154087 (5pp34)
Pulp waste liquor, e.g. an alkali pulp waste liquor and a sulph pulp waste liquor etc. are purified by adding an alkali sol dissolving therein a lignin sepd. from a kraft pulp digested liquor make its pH less than 7 and to coagulate the lignin content so as form a lignin-contg. ppte. which is then dissolved with an alkal necessary after subjecting it to an acid treatment and/or h treatment and reused as a treating agent for an unpurified p waste liquor.
Sludge mainly of lignin, obtd. from the pulp waste water is reus as the treating agent. Amt. of sludge, wasted is reduced. Surp sludge is easily treated (e.g. incineration etc.) as process has used any inorganic cpd. except an acid and an alkali. Coagula ppte. is coarse and non-sticky, and easily sepd. from water.(J52079560)

D15 29844 A/16 = J8 1001-150
sepn. from waste water - by suspending sparingly-soluble
cpd., adding soluble calcium salt and sepg. ppte.
UBISHI KEIKINZO 24.08.76-JP-100823
*(12.01.81) *J53026-457 + C02f-01/58*
s 100823 (3pp34)
-contg. waste water, e.g. discharged from an Al smelting
treated by adjusting its pH to 6-10, pref. 6.5-8.5 when the
ater is acidic or alkaline; suspending a sparingly soluble
cpd., except CaF2, e.g. cryolite etc. in an amt. of 0.05-10,
-5 times by wt. of the fluorine ion; adding opt. under
n, a soluble Ca salt, e.g. CaCl2, Ca(NO3)2, etc. in an amt. of
ref. 0.45-0.75 mol. per mol. fluorine ion, so that reaction
ery rapidly and is completed within 20 mins., to form a ppte.
easily sepd. within a short period from the water by means
ventional ppte. concentrator.(J53026457)

D15 37546 A/21 = J8 1001-151
g waste water contg. fluorine - by controlling pH and
ing with substance coated with calcium fluoride
ACHI PLANT ENG CONST 27.09.76-JP-115585
*01.81) *J53041-059 + C02f-01/58*
5 as 115585 (5pp43)
nent comprises maintaining the waste water at pH 3-12 and in
state that Ca ions of above equivalent against the fluorine
ed may coexist, and contacting it with a solid substance
ted with particles of CaF2 to remove fluorine.
2 acts as a deposition seed for CaF2 produced through reaction
rine and Ca ions, and is pref. supported on granular active C,
and others insoluble in water, thus eliminating the difficulties
epg. out the CaF2.
cess removes fluorine contained at low concn. down to less
00 ppm. in a simple way, without sludge by-produced, and is
applicable to treatment of waste water contg. relatively low
e concn.(J53041059)

D15 37539 A/21 = J8 1001-152
ial for contact-removal of fluorine from waste water - is obtd.
ming calcium fluoride on water insoluble porous solid carrier
TACHI PLANT ENG CONST 27.09.76-JP-115586
*01.81) *J53041-048 + C02f-01/58*
6 as 115586 (3pp34)
aterial is obtd. by impregnating a water-insoluble porous solid
ial (to be used as a carrier for the contact-treating agent) e.g.
tivated charcoal, zeolite, chamotte etc., with a soln. of a
le, e.g. NaF etc., followed by drying; and further impregnating
a soln. of Ca salt, e.g. CaCl2 etc., to deposit CaF2 on the
e of the porous solid material and in the minute holes, so that
F2 thus formed becomes highly active as nuclei for deposition
F component as Ca cpd. without the need for a CaF2-adding
a coagulant-adding appts., a coagulation appts., a settling
, a filtering appts., and a generated sludge-dehydrating appts.
onventional methods.
erial is esp. used for treating waste water with a fluorine
. less than 100 ppm.(J53041048)

A/ D15 41082 A/23 = J8 1001-153
ving fluorine ion from aq. soln. e.g. factory effluents - by
ating the ionic concn. by e.g. addn. of magnesium ion or water
JMAKI I 08.10.76-JP-121112
*.01.81) *J53046-163 + C02f-01/58*
76 as 121112 (10pp117)
treatment of aqs. solns. e.g. factory effluents contg. fluorine
olids formed in aqs. soln. were removed by regulating the ionic
. to about 100-15000 ppm. by Mg, by e.g. the addn. of sea-water
ilution, by the addn. of Mg ion or the sea water with e.g.
horic acid, water glass, or sodium aluminate, either in single
combination, or by the addn. of a metallic salt, followed by the
tment of pH to about 10-13 by addn. of a pH regulator. The
ed waste water obtd. is introduced into an adsorption tower
adsorbent-filled packed layers for adsorptive sepn.
thod is partic. suitable for the waste water discharged from
ries mfg. steels and electronic pts. A high concn. of fluorine ion,
00-200 ppm., present in factory effluents can be removed easily
conomically.(J53046163)

D D15 61239 A/34 = J8 1001-154
ting waste from washing heavy metal contaminated soil - by
sting pH to de-stabilise chelating agent heavy metal complex
tabilise ferric complex
JMITOMO CEMENT KK 28.12.76-JP-157449
*2.01.81) *J53082-051 + C02f-01/62*
.76 as 157449 (4pp34)
ning effluent from washing soil contaminated with heavy
ls, e.g. Cd etc. with chelating agent, contg. a chelating agent-
y metal complex cpd., is treated by (a) carrying out pH adjustment so as to lower the conditional stability constant of the harmful heavy metal complex cpd. and to increase the conditional stability constant of a Fe(III) complex cpd., the harmful heavy metal in the washing effluent being replaced with Fe(III); (b) removing by adsorption the dissociated harmful heavy-metal ion and an excess amt. of Fe(III) ion by use of lime and/or Ca silicate; and (c) carrying-out neutralisation of the effluent.

The treating process is simple as adsorber carries out simultaneously the adsorption and the neutralisation. The treating cost is very economical. The adsorber is used as aggregate for concrete or material for cement, so final anti-pollution treatment is unnecessary.(J53082051)

AGEN D15 42977 A/24 = J8 1001-156
Cleaning waste water to reduce COD and BOD - using aerobic microorganism and inorganic adsorbing agent prepd. from aq. soln. contg. aluminium and/or iron and calcium and/or magnesium
AGENCY OF IND SCI TECH 18.10.76-JP-124739
*(12.01.81) *J53049-858 + C02f-03/12*
18.10.76 as 124739 (7pp50)
The method comprises treating the waste water with aerobic microorganism and an inorganic synthetic adsorbing agent consisting of dehydrated solid matter of a coprecipitate, or related substance, formed by insolubilising the metallic components from an aq. soln. contg. aluminium and/or iron, calcium and/or magnesium.

Cleaning of the waste water can be achieved in a short time by the synergism of oxidative decomposition with aerobic microorganism and physicochemical adsorbing action and denitrifying action with the inorganic adsorbing agent. The size of the appts. can be reduced.

The adsorbing agent is e.g. Al-Mg system adsorbing agent made by treating sodium aluminate with magnesium chloride, Al-Ca system adsorbing agent made by treating sodium aluminate with calcium chloride, etc. Activated sludge is used as the aerobic microorganism.(J53049858)

FURU/ ★ D15 08978 D/06 ★J8 1001-158
Waste water denitrating - is carried out with sole use of microbes in active sludge
FURUKAWA K 12.02.76-JP-014580
(12.01.81) C02f-03/34
12.02.76 as 014580 (14pp26)
Method and device is described for removing continuously nitrogen from waste waters, utilising microbes in active sludge for denitration, without adding any organic cpd. as a hydrogen source. Nitrates in raw water are removed by the microbes with active sludge, and the waste water-sludge mix liq. in the process is circulated in a process for converting the liq. into nitrates by the microbes. (J52098356).

NIIG D15 35737 A/20 = J8 1001-159
Redn. of nitrogen oxide(s) in waste liquor - contg. oxidn.-treated organic waste water or sludge
NIIGATA ENG KK 20.09.76-JP-112662
*(12.01.81) *J53037-577 + C02f-03/34 C02f-11/08*
20.09.76 as 112662 (5pp34)
In removing biologically a nitrogen component from a nitrogen-contg. waste liquor contg. a wet-type oxidn. treated liquor obtd. by oxidising under wet state a conc. organic waste water or sludge, e.g. excreta and sewage etc., the improvement comprises (a) sepg. the waste liquor into the wet-type oxidn. treated liquor and a wet-type oxidn. treated waste gas after its wet-type oxidn.; (b) introducing partially the oxidn. treated liquor into the waste liquor; (c) carrying-out the redn. of NO2 and NO resulted in biological oxidn. of organic nitrogen components and NH3-N contained in the waste liquor, to N2 under an aerobic reductive state while supplying the oxidn. treated waste gas.

The redn. of the nitrogen oxides is carried-out rapidly, and simultaneously an amt. of NaOH and MeOH is saved, necessitated in the biological oxidn. and reducing treatments, resp.; further there is saved an organic carbon source to be newly supplied to the system, thereby the process has lower treating cost. (J53037577)

NIUA D15 60960 A/34 = J8 1001-160
Acidic organic effluent treatment - by neutralising with caustic alkali soln., sepg. alkali salt, adding ferric oxide, drying, calcining to leave ash and leaching
NIPPON SPINDLE MFG KK 24.12.76-JP-154920
*Q73 (12.01.81) *J53080-759 + C02f-09*
24.12.76 as 154920 (7pp34)
Organic acid effluent e.g. from synthetic organic industry, petroleum- and tar-refining industry etc. is purified by (1) neutralising with a caustic alkali soln. to give an organic alkali salt soln. which is removed by extn., absorption, etc.; (2) adding Fe2O3 to a liquor obtd. and uniformly mixing together and evaporating-off H2O content to give solid residue which is then calcined at more than 800 deg.C under oxidising atmos. to leave ash; and (3) leaching the

ash with H2O after its pulverisation to separate it into a caustic alkali soln. and a slurry or sludge of Fe2O3.

The caustic alkali soln. is recycled to (1) and the Fe2O3-slurry recycled to (2). The alkali component is recovered almost completely without discharging any sec. polluting matters to the outside of the system.(J53080759)

TEIN- ★ D15 D/06 ★RO --73-343
Textiles finishing waste water cleaner - has a flotation chamber with compressed air recirculation
INST TEHN IND USOAR 24.06.77-RO-090803
F06 (30.03.80) C02c-05/06

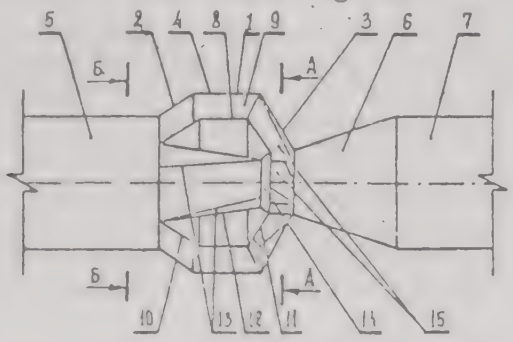
GOSP- ★ D15 D/06 ★RO --73-510
Potentiometric chlorine ion determination in water - with electrochemical cell contg. silver wire indicator electrode immersed in selective membrane contg. capsule
INST GOSPODARIREA 23.11.77-RO-092193
E36 J04 S03 (30.03.80) G01n-27/07

PETR- ★ D15 D/06 ★RO --73-604
Biological residual water purification - by coagulation, removing excess sludge for use as fertiliser and feedstuff, and water passage through macromolecular filter
COMB PETROCH BRAZI 31.12.77-RO-092783
C03 (C04 D13) (30.03.80) C05f-07

GOSP- ★ D15 D/06 ★RO --74-001
Cyanide ion loading of water - continuously determined automatically by electrolysis with sodium hydroxide soln. in analyser also contg. alarm circuit
INST GOSPODARIREA 19.08.77-RO-091422
E36 J04 S03 (30.03.80) G01n-33/19

LECO= ★ D15 09097 D/06 ★SU -738-638
General purpose water filtration - has high flow velocity, based on granular charge made as slag from nickel production
LENGD COMMUNAL RES 15.06.78-SU-628520
(08.06.80) B01d-37
15.06.78 as 628520 (3pp132)
The process comprises passage through a granular charge containing oxides of iron and silicon. To increase productivity the charge is slag from nickel production.

ROST= ★ D15 09107 D/06 ★SU -738-648
Hydraulic mixer for water purification, etc. - has baffle with axial confuser fitted with opposing blades
ROSTOV COMMUNAL ECO 10.01.78-SU-567588
J02 (08.06.80) B01f-05
10.01.78 as 567588 (3pp132)
The mixer comprises a hydraulic casing witb axial supply and discharge pipes and an axial baffle with external blades on it. To turbulise the flow and reduce hydraulic pressure losses, the baffle has an axial confuser in it also containing blades.



LEZH ★ D15 09110 D/06 ★SU -738-651
Removal of calcium, strontium or barium salts for aq. effluent - using as ionite calcined calcium, strontium or barium titanyl oxalate cpds.
LENINGRAD ZHDANOV UNIV 18.07.78-SU-648238
E33 J01 (08.06.80) B01j-01/08
18.07.78 as 648238 (2pp835)
Inorganic ionites (Ca, Sr or Ba titanyl-oxalates) are employed in chemical, nuclear and hydrometallurgical industries to remove divalent cations (Ca, Sr or Ba) from effluent

Selectivity is improved by using the Ca cpd. for absorbing Sr or Ba and the Sr or Ba cpd. for Ca. Mg is not absorbed.The degree of absorption varies with the temp. at which the ionite is dried(130-450 deg. C). The opt. ratio wt. of ionite:Cl-soln. vol. is 1:100.

KOMO/ ★ D15 09231 D/06 ★SU -7
Prodn. of activated silicic acid - includes acidifying in two sta water-glass aq. soln. before dilution, used as flocculant in purificn. etc.
KOMOGORTSEV B V 06.01.78-SU-564499
E36 (09.06.80) C01b-33/12
06.01.78 as 564499 (2pp835)
Active silicic acid employed as a thickener and flocculant is ma neutralising aq. Na silicate with acid to pH 7-10, allowing the s age and diluting with water.

Better flocculating characteristics are secured if before dilution, the soln is acidified to pH 2.0-0.8.

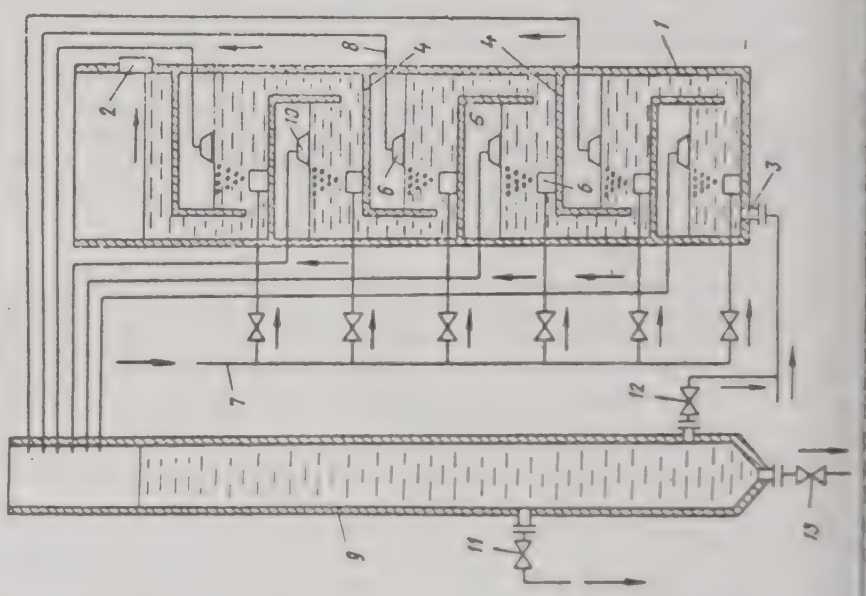
Typically to 40 ml 2.8% aq. water-glass are added 2 ml 20% H and after 25 min further H2SO4 is added to pH 1.4. The silicic and a prototype acid were tested as filtration aids and flocculan P-contg. concentrates. Sedimentation rates were raised from 90mm/min and filtration rates from 0.05 to cm/sec.Bul.21/5.6.80.

TSVO= ★ D15 09235 D/06 ★SU -73
Removal of finely dispersed solids from industrial waste wa includes treating with polyelectrolyte e.g. poly di:butyl-amino methacrylate
TASHK VODGEO WATER 28.12.77-SU-577674
A91 J01 (09.06.80) C02b-01/20
28.12.77 as 577674 (3pp815)
Finely dispersed solids are removed from waste by treating w synthetic high-mol. wt. cationic polyelectrolyte(e.g. polydibutylaminoethyl methacrylate having flocculant activity amt of 1-10 mg/l.

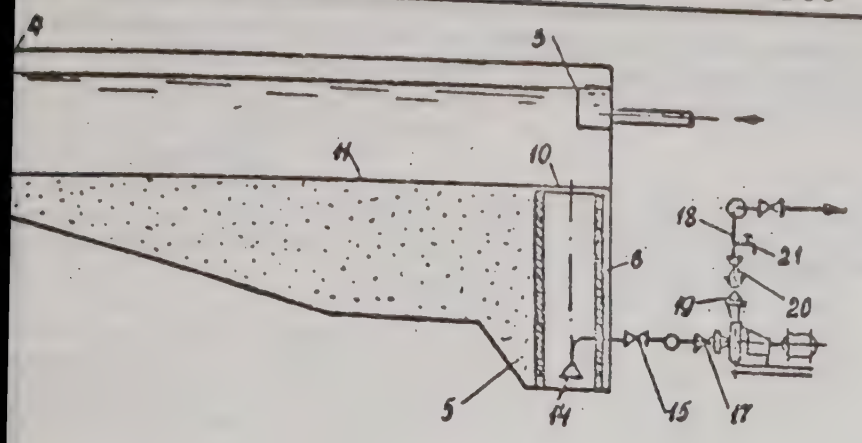
The method can be used to treat waste contg. up to 30,000 solids and the % sepn. of solids achieved is 92-99.9 depending or level of addn of polymer.

The methacrylate is more efficient, faster in action, cheaper, has less toxic effect than the previous additive, polyethyleneim which had a variable effect on flocculation, depending on mol and which could not deal with finely dispersed solids.

USSE= ★ D15 09236 D/06 ★SU -73
Biochemical cleaner for water containing oil - has secondary se linked to opposed partitions for forced circulation and high capa cleaning
UKR SOUTH SEAS BIOL 22.07.76-SU-390984
J01 (08.06.80) C02c-01/02
22.07.76 as 390984 (2pp132)
The cleaner comprises a vertical container with a set of transv filter partitions over its height a secondary settler and low-den phase removal pipes. To increase performance on highly-poll water one end of each partition is connected alternately to opposite walls of the container, and the one end of each pip mounted under the corresponding partition, while the othe connected to the secondary settler.



WATE= ★ D15 09237 D/06 ★SU -739
Horizontal water settler - has perforated cup resting on slo bottom and extending to top of deposition zone
WATER SUPP DRAINAGE 05.03.74-SU-003104 (05.03.74-002677)
(05.06.80) B01d-21/02 C02c-01/26
05.03.74 as 003104 (4pp132)
The settler comprises a bottom with a variable slope, and a recei having an output pipe. To reduce water loss and deposit humidit vertical cup on the bottom has a perforated base, and its top ed are level with that of the deposition zone.



/ ★ D15 09238 D/06 ★SU-739-002
of urea from prodn. aq. waste - using two/stage closed cycle by . with heat and air injection in tower
RLOVSKII D M 25.01.78-SU-573696
1 E16 (08.06.80) C02c-05
78 as 573696 (4pp815)
from urea prodn. is treated by cooling cleaner recycle water ontaminated waste in two separate cycles in an injection g tower, where the waste is cooled and evapd.
consumption of clean water is reduced and the efficiency of process increased without altering the operation of the heat nger if 10-100% air is injected into the tower to evaporate the instead of relying on heat alone.
method converts the prodn. of urea into a closed-drainage n, eliminates the need for a sewerage system, produces ercial urea from the waste, and reduces the use of recycle from the overall factory system.

N ★ D15 09239 D/06 ★SU-739-003
oving tri:valent and hexa:valent chromium cpds. from aq. - by adsorption on mixed hydroxide(s) of aluminium, iron, nium and copper obtd. as waste from etching, galvanising er mfr. etc.
OSCOW MENDELEEV CHEM IN 29.12.77-SU-561330
31 J01 M14 (08.06.80) C01g-37 C02c-05/02
77 as 561330 (3pp815)
and hexa-valent chromium cpds.; e.g. sulphides can be all ved from aq. waste by treating with a cation exchange material osed of the solid waste from etching, leather processing and nising etc. contg. Al(OH)3 70-80, Fe(OH)3 3-6, CaCO3 8-10, H)3 1-3 and Cu2(OH)2SO4CO3 1-3%.
e absorption capacity was up to 38 mg/ml compared to only g. for the previous sorbent, cationite KU2, which also had a service life owing to contamination by sulphides, and which not remove hexavalent Cr.
e mixed hydroxide sorbent is efficient, has a long life, and is not ct to contamination.

T= ★ D15 09240 D/06 ★SU-739-004
icn. of aq. waste contg. petroleum etc. prods. - includes rolysis in presence of sea salt with recycle of magnesium-contg. E from cathode chamber and clarified liquor from anode
KR WATER CONS ENG 01.06.76-SU-366995
5.06.80) C02c-05/12
76 as 366995 (4pp815)
oleum prods. can be removed from waste water obtd. from , and domestic and industrial waste from maritime areas can urified, by electrolysis in presence of sea salt in the cathode nber of a diaphragm electrolyser, followed by sepn. of the insol. ontg. ppte. and recycling it to the anode chamber. The prods. the anode chamber is sepd., and the liquid phase recycled to athode chamber.
is method is an improvement on the previous one, in which the . ppte. was treated separately in a methane tank, as it inates the need for additional apparatus, reduces the vol. of r processed, and uses no additional reagents.

A/ ★ D15 09241 D/06 ★SU-739-005
oving suspended solids and colloidal cpds. from waste water - lectrolysis at soluble electrodes with recycle of foam prod. and residue
ALANDIN E M 08.06.76-SU-369629
08.06.80) C02c-05/12
6.76 as 369629 (2pp815)
te water contg. mineral or organic suspensions or colloids, e.g. ure can be purified by multistage electrolysis at soluble trodes, and the consumption of electrode material and energy be reduced if the foam prod. of the final stage is mixed with the . obtd. after settling and recycled to the first stage with the er being passed for treatment.

The method ensures full utilisation of the Fe ions passing into soln. at the electrodes for pptn. of the hydroxides, and gives a redn. of over 12% in the consumption of power and metal.

TYUR/ ★ D15 09242 D/06 ★SU-739-006
Removal of chlorinated organic cpds. from industrial aq. waste - by electrolysis at insoluble cobalt oxide coated titanium anode with acid medium in presence of nickel or cobalt salt as catalyst
TYURIN B K 07.07.76-SU-382191
E19 (E37) (08.06.80) C02c-05/12
07.07.76 as 382191 (3pp815)
Chlorinated organic cpds. be removed from industrial waste water, by electrolysis at insoluble titanium anodes coated with cobalt oxide in presence of a catalyst at pH 4-6.5 and raised temp.
A suitable catalyst is a Ni or Co salt in an amt. of 0.1-3 g./l at 80-100 deg. C, which results in a reaction time of half that given by the previous catalyst, nickel oxide.
The method can deal with a wide range of contaminated aq. waste e.g. from glycerol, ethylene-diamine and chloroprene from butadiene mfr.

CSMA= ★ D15 09243 D/06 ★SU-739-007
Removing hexa:valent chromium cpds. from aq. waste - includes electro-coagulation in presence of waste ferrous sulphate from titanium prodn.
CONS MATER IND SAFE 03.05.77-SU-480376
E31 (09.06.80) C02c-05/12
03.05.77 as 480376 (2pp815)
Chromium cpds. can be removed from aq. waste by rapid and inexpensive electro-coagulation with addn. of ferrous sulphate prior to coagulation, in the form of a 5% soln., in an t. of 7.5-12.5 l./cm.m. A cheap source of the sulphate is waste from prodn. of titanium.
The process ensures complete removal of hexavalent Cr uses inexpensive reagents, and consumes about 100 times less electricity than the previous method without the sulphate additive. The method can be used in purifcn. of asbestos-cement etc. mfg. industries.

LEEN= ★ D15 09437 D/06 ★SU-740-252
Water purifcn. installation treatment after use - with aq. hydrogen peroxide and then with silver salt soln. to prevent bacterial growth
LENGD ENG-CONS INST 08.12.78-SU-693481
P34 (18.06.80) A61l-13/04
08.12.78 as 693481 (2pp938)
Water purifcn. installation on board ship etc. is filled with dilute aq. silver salt soln. to prevent bacterial contamination during the period when the installation is not used. The sterility of the internal surfaces of the appts. after prolonged inactivity is improved and removal of the preservation agent and the cleaning of the installation is accelerated, if the latter is first filled with 5% hydrogen peroxide soln., which is then held inside the vessel for 1-1.5 hrs. The installation is subsequently filled with 0.01-0.03 mg/l. aq. silver salt soln. The above amts. of chemicals are non-toxic to man but have effective bacteriostatic activity. Bul.22/15.6.80.

UNVO ★ D15 09445 D/06 ★US 4245-396
Sewage sludge drying process - comprises removing water, adding plasticiser to dried particles, and extruding the prod.
UOP INC 09.07.79-US-055568 (08.12.77-US-858879)
A97 C04 Q76 (20.01.81) F26b-05/14 F26b-07
09.07.79 as 055568 (+7.7.77(2); 20.10.77; 8.12.77; 29.03.78; 25.5.78; 22.3.79(2)-US-813577/8; 844097; 858879; 891437; 909587; 0
Sewage sludge drying process comprises (i) feeding the sludge into a drying zone in which water is evapd. to leave dried particles, (ii) passing the solids/vapour effluent stream from the drying zone into a sepn. zone where the water vapour is removed to leave a stream of dry solids contg. less than 15wt.% water, (iii) mixing a plasticiser into at least a portion of the dry solids stream, the amt. of plasticiser being less than 5wt.% of the portion; and (iv) extruding the portion in an extrusion zone under conditions such that the prod. stream has a bulk density of greater than 30 lb. per cu.ft., pref. 30-65 lb/cu.ft.
The extruded mixt. is used to form fertiliser granules.

WILL/ ★ D15 09465 D/06 ★US 4245-570
Appts. for disposal of sewage sludge - by drying and grinding, heat being produced by burning previously treated sludge
WILLIAMS R M 26.04.79-US-033434 (03.07.78-US-921739)
Q73 (20.01.81) F23g-07/04
26.04.79 as 033434 (12pp295)
Sewage sludge is delivered to a roller mill for grinding. There is a gas inlet to the mill and an outlet for the ground sludge carried by the gas. Fine ground sewage sludge is burned in a furnace which produces heat for drying the sludge.
A classifier is connected to the roller mill outlet and from here the classified ground sludge and gas are delivered to a separator. Here the sludge is separated from the gas which are delivered separately

to the furnace: Ground sludge not required as fuel by the furnace can be withdrawn. A portion of the sewage is recycled from the mill for mixing with incoming sludge.

The apparatus is used for the disposal of sewage sludge and uses the heat value of the sludge to produce the necessary drying heat.

BIOH- ★ D15 09561 D/06 ★US 4246-100
Compsn. for treatment of sewage - contg. triacontanol, and the prod. of digestion of cow excrement
BIO-HUMUS INC 22.10.79-US-086934
E17 (20.01.81) C02f-03
22.10.79 as 086934 (3pp478)
Compsn. for addn. to sewage consists of a mixt. of triacontanol (I) and the liq. prod. (II) of a 1st digestion of milch cow excrement under mild acid conditions, and further digestion of liq. portions from this with algae and solar radiation.

Compsn. accelerates redn. of sludge to soluble or finely dispersed material, and minimises generation of H2S (the compsn. increases methylglycine (tricine) or glycylglycine, and pref. (c) a solid water-soluble organic acid and (d) 2-amino-2-methyl-1,3- propanedial (AMPD) or 2-amino-2-hydroxy methyl-1,3-propanediol (Tris).

Electrophoretic determn. of the relative distribution of lactate dihydrogenase (LD) isoenzymes is carried out by (i) applying the sample to a buffered electrophoretic medium, (ii) placing the sample-contg. medium in an electrophoretic cell contg. an electrophoretic buffer, and sepg. the LD into its constituent isoenzymes, (iii) contacting with a soln. contg. a substrate buffer, an activator, a substrate and an indicator, and (iv) measuring the amt. and location of detectable reaction prod. The improvement comprises using (I) as the electrophoretic buffer and/or the substrate buffer and opt. to buffer the electrophoretic medium.

Determn. of LD isoenzymes can be used for diagnosis of diseases. (I) give higher relative percentages of LD5 isoenzyme than prior art buffers and thus improve the accuracy and reproducibility of the electrophoretic data.

PURE- ★ D15 09562 D/06 ★US 4246-101
Water recycling system controlled by microprocessor - which monitors each stage and controls water flow between consecutive stages
PURE CYCLE CORP 28.12.78-US-974043 (24.01.77-US-762103)
T06 X25 (20.01.81) C02f-09
28.12.78 as 974043 C.i.p.4145279 (12pp295)
Water treatment system produces potable water from waste water. It includes a solid-liquid separation unit for removing virus, bacteria, organic molecules and other suspended particles from the water. An organic reduction unit breaks down and eliminates the organic content of the waste water. A demineraliser removes organic materials, colour, and inorganic salts from the waste water.

The operation of the separation unit and demineraliser are monitored to produce an output to which a microprocessor is responsive. The microprocessor controls the intermittent flow of water between the two units and the functions of the units. It also monitors the quality of the water.

System provides a closed recycling unit capable of producing potable water from total domestic waste water including sewage.

RENO D15 40781 A/23 = US 4246-102
Liq. impurities sepn. system - using filter bed for fluid with chemical admixture and integral filter medium scrubbing device
REDERI AB NORDSTJERNA 29.11.76-SE-013367
*(20.01.81) *DE2753-064 B01d-23/24*
28.11.77 as 855323 (10pp1376)
Pollutants are separated from a liquid by mixing with a precipitating or flocculation agent, passing the mixture to a moving particulate filter bed, removing soiled particulate from the bed, and cleaning the particulate before its return to the bed. Air is used to transport the particulate through a wash-step for cleaning.

Pref. the mixture is homogenised before being supplied to the filter bed. Water can be filtered using only a single bed.

FARB D15 83192 Y/47 = US 4246-103
Propane diphosphonic and diphosphinic acid water conditioners - which act as corrosion, scale and pptn. inhibitors, deflocculants and liquefiers
BAYER AG 14.05.76-DE-621606
*E11 M14 (20.01.81) *DE2621-606 C02f-05/14*
28.02.79 as 015999 (+ 25.4.77-US-790353) (12pp924)
In conditioning water by adding a P-contg. acid (salt) to inhibit pptn. of hard water ions, the improvement comprises using as the acid (salt) a 1-substd. propane-1,3-diphosphonic acid of formula (I) (HO)2P(O)CH(R3)CH2C(R5)(COOH)P(O)(OH)2 (where R3 is H or carboxy; and R5 is H, or carboxy(m)ethyl) or its salt.

Specific (I) are 1,3-diphosphonobutane-3,4-dicarboxylic acid and 1-carboxypropane-1,3-diphosphonic acid. (I) inhibit corrosion and concretion and are useful as sequestrants, dispersants, pptn. retarders, and deflocculants in aq. solns. and suspensions, industrial water and aq. sludges. (I) are useful as corro inhibitors in aq. systems at temps. of -50 deg.C to + 250 deg.C.

FARB D15 39792 Y/23 = US 424
Hydrolysis of effluent under pressure - for treatment of effl contg. organometallic cpds. or organic phosphorus, nitroge halogen cpds.
BAYER AG 29.11.75-DE-553840
*(20.01.81) *BE-848-846 C02f-01/72*
30.04.79 as 034713 (+ 29.11.75, 12.6.78-US-742314, 914815) (3pp931)
An effluent contg. organic phosphoric ester acids is chemic treated hydrolytically for 20-200 mins. at more than 100 deg.C, n than 2 bars pressure and pH 1-14, then treated with hydrochlorit hydrogen peroxide.

Pref. the effluent contains an organohalogen cpd., and hydrolysis is carried out in the presence of 1-20 kg. of nitrogen in form of ammonia, or prim.- or sec.amine. 100-10000g of an activa carbon or kieselguhr catalyst is added per cub.m of effluent be the treatment.

The treatment may esp. be carried out in conventional appts. pressure-hydrolytic treatments, e.g. stirrer-equipped vess autoclaves, pressure tubes.

ROHR/ D15 84363 A/47 = US 4246
Water and waste water purification - by catalytic oxidn. promo by free radical forming activated dissociated or ionised gas
ROHRER E 14.04.77-CH-004659
*(20.01.81) *DE2815-430 C02f-01/74*
07.08.79 as 064494 (+ 11.04.78-US-895390) (3pp931)
The chemical oxygen demand of water loaded with oxidisa substances is reduced by continuous oxidn. in the presence o catalyst, and without using ozone.

The process comprises producing excited, dissociated or at le partially ionised atmos. air without producing ozone; then mix the water with the treated air such that free radicals are formed initiate oxidn. in the presence of the catalyst.

The process is esp. used to produce potable or drinkable water, catalyst for which is continuously regenerated or reactivated.

AIRL ★ D15 09566 D/06 ★US 4246-
Appts. for biological treatment of waste water - with control oxygen addn. to avoid undissolved oxygen in reaction or clarificat zones
AIR LIQUIDE L' 07.11.79-US-092176 (07.10.76-US-730478)
(20.01.81) C02f-03/26
07.11.79 as 092176 Div ex 4192740 (+ 11.5.78-US-905008) (21pp295)
An appts. for treating waste water comprises a single enclos defining an upper clarification zone, a lower biological reaction z and an intermediate transition zone.

The appts. includes an oxygen dissolving device through whic recycle stream of mixed liquor is continuously circulated. T recycle stream is conducted at a variable rate to provide a reside time effective for the biodegradation of the waste and the format and settling of floc.

The oxygen is added at a rate to provide an oxygen concentrat below the saturation level of oxygen. The oxygen is maintained contact with the liquid for a time and under a pressure so tha dissolved. The dissolved oxygen concn. is continuously monitored a probe connected to a dissolved oxygen analyser and controller periodically adjusting the rate of oxygen addition.

The appts. is used for the treatment of municipal or indust wastes.

ULTR- ★ D15 09567 D/06 ★US 4246
Appts. for recycling of industrial water - with sepn. of oil and stor and aeration of residual water prior to reuse
ULTRACEPT INC 31.10.79-US-089966 (25.07.79-US-060655)
P41 (20.01.81) B03d-03
31.10.79 as 089966 (11pp295)
A oil-water separator includes serially interconnected floata compartments with drains to remove the sepd. oil as described in Pat. No. 4,246,113. The sepd. water produced is delivered to a wa storage compartment from where it may be removed for reuse. T compartment includes a submerged pump which produces pressurised flow of water delivered through a conduit to the desi location for reuse.

Pref. the conduit includes a heater. Fresh water may also supplied to the storage compartment should the level drop belo predetermined value.

The appts. is used for reclaiming water by the removal of gre and oil e.g. at a car repair and service station.

D15 09568 D/06 ★US 4246-113
sepn. of oil from water in industrial waste - using serially ected oil flotation compartments
ACEPT INC 25.07.79-US-060655
(20.01.81) B03d-03
s 060655 (18pp295)
arated from waste water by delivering the mixture to a first n compartment. This includes a drain with its mouth ust above the water surface when the compartment is full. d oil floating on the surface is removed via the drain.
parated water still containing some oil is delivered to a separation compartment via a restricted conduit which s the residence time in the first compartment. The second ment also includes a drain whose mouth is slightly below the he mouth of the drain in the first compartment.
is removed discontinuously from the second compartment e control of a water level sensor.
pts. is used to separate oil or grease from water discharged n industrial cleansing operation, e.g. at a car repair and station. Overall removal of oil is efficient with little ked residual water.

★ D15 09569 D/06 ★US 4246-114
waste treatment appts. with surge tank - removable without y for making electrical disconnections
TI-FLO INC 15.11.78-US-960875
(20.01.81) B01f-03/06
as 960875 (5pp295)
waste treatment appts. includes an open-mouthed holding cross which a hanger plate extends. Porous bags are ied from the plate through openings. There is also a central through the plate and this is surrounded by a vertical wall.
ter shell extends upwardly from the periphery of the holding here is an access opening in the shell and an access cover the opening. A surge bowl is received in the shell resting on per edge of the vertical wall. The surge bowl increases in er upwardly with a max. dia. such that it can be removed n the access opening.
s. is similar in type to that described in US2923656 but is ed for simplified maintenance and decreased frequency of nance.

★ D15 09572 D/06 ★US 4246-119
sh sand filter with diaphragm hold down - for granular filter during filter stage
DREDGE R L 12.02.79-US-011444
(20.01.81) B01d-23/24
as 011444 (7pp1044)
wash, self-graded sand filter includes a column of granular media with a wash liq. inlet near the bottom and an outlet for wash liq. at the top. A reusable diaphragm is movable against of the column during the filter stage for compressing and g the media in place. During the wash stage the diaphragm is ed to allow the media to be lifted by the upflow of liq. from the

diaphragm serves to prevent loss of media and avoid eling through the media to provide very high filter rates. High ity upflow filtration, downflow filtration and combined up and flow filtration is obtainable.

M D15 86187 B/48 = US 4246-417
ment of aq. effluent from prodn. of nitrile s) by ammoxidation - ose of water-soluble polymers
MMUS CO 15.05.78-US-905958
*1 E16 (A35) (20.01.81) *DE2918-979 C07d-121/54 C07d-213/57*
78 as 905958 (3pp931)
An aq. stream contg. non-strippable water-soluble polymers and steam stripple volatile components is recovered from waste waters derived from a nitrile production effluent. The process comprises (a) steam stripping the volatile components from the aq. stream to yield an aq. stream contg. the non-strip non-strippable water soluble polymer; (b) generating steam from part of the aq. stream to produce a remaining aq. portion contg. the polymer; and (c) generating steam from the remaining portion to yield a remaining aq. concentrate contg. the polymer.

Heating for (c) is provided by indirect transfer with steam generated in (b) to condense steam and produce a condensate free of polymers. The steam generated in (c) is used for steam stripping in (a). The process removes ammonia, hydrogen cyanide and carbon dioxide from the effluent to yield the soluble polymer.

FRAN/ ★ D15 09728 D/06 ★WP 8100-101
Biological purification of waste water - with constant flushing and aeration of microorganisms growing on media held in double spiral
FRANDSEN A S 26.06.79-DK-002676
(22.01.81) C02f-03/08
25.06.80 as DK0037 (18pp295) (E) SE-345842 SE-353301 US2106025 N(AU BR DK JP NO RO SU US) E(AT CF GB CH CM DE FR GA GB LU NL SE SN TD TG)
Appts. flushes and aerates a surface coated with microorganisms during the biological purification of waste water. It comprises a spirally coiled channel which is rotatable about a horizontal axis above the surface of the waste water. The inlet mouth of the channel thus receives air as well as waste water during rotation. The central coil of the spiral is connected to the central coil of a corresp. second spiral of opposite coil direction. This is mounted coaxially with the first spiral and has its outlet below the waste water surface during part of the rotation. Both spirals are filled with a medium on which microorganisms can grow..

The constant flushing and aerating of the medium provides a good environment for the biological growth. Also the use of the double spiral minimizes energy input as the weight of the rising water balances that of the falling water and so energy is only required to overcome the inertia of the water and the mechanical resistance.

SMAL/ ★ D15 09729 D/06 ★WP 8100-102
Waste disposal appts. for vacuum sewer system - with aerobic decomposition of waste occurring in collection tank
SMALL S H 02.07.79-GB-022872
Q42 (22.01.81) C02f-03/12 E03f-01
01.07.80 as G00111 (23pp295) (E) FR-847250 FR2415028 FR2308742 US3049489 US3620371 N(AU BR DK JP NO US) E(AT CH DE FR LU NL SE)
Waste disposal apparatus is suitable for use in a vacuum sewer system. It includes a tank with a waste inlet and outlet. The pressure within the tank may be reduced so that in use the waste is drawn in through the inlet which is positioned above the waste level in the tank. The tank also includes an air inlet through which air may be introduced directly into the waste for aerobic digestion..

The apparatus is suitable for use where there are several closely situated waste sources e.g. for several houses, or on board a ship. The waste decomposition is carried out in the collection tank.

See Also

D13 SU 739406 D16 2946884 D16 EP--23176
D16 FR 2453588 D16 FR 2453999 D22 DE3024911
D22 EPG000773 D25 DS2217692

D16: FERMENTATION INDUSTRY

B/ ★ D16 D/06 ★BR 8006-368
of anhydrous and/or neutral alcohol from fermented must - ntegrated evaporator
AUSCHENBERG B R 03.10.80-BR-006368
3.01.81) C12f-01

B/ ★ D16 D/06 ★BR 8006-369
rated evaporator for distn. of alcohol
AUSCHENBERG B R 03.10.80-BR-006369
B.01.81) C12f-01

SLOV- ★ D16 08024 D/06 ★DE 3025-437
Large-pored silicic acid xerogel prepn. - by hardening silicic acid gel with acid, washing hydrogel with solvent and calcining
SLOVENSKA AKAD VIED 09.07.79-CS-004807
A60 B04 E36 (29.01.81) C01b-33/16
04.07.80 as 025437 (10pp200)
Silicic acid xerogel having a large pore vol. is prepd. by first hardening moist silicic acid gel, prepd. by polymerising acidified aq. alkali metal silicates, with inorganic acids, esp. H_2SO_4, HCl, HNO_3 or H_3PO_4, or with organic acids, esp. trichloroacetic acid. After washing out the acid, esp. with water, the aq. gel phase is washed with organic water-miscible solvents, e.g. MeOH, EtOH, acetone, dioxan, tetrahydrofuran, and then again with organic water-immiscible solvents, esp. toluene, benzene, CCl_4, n-heptane or light

5-12C-chain hydrocarbons. The prod. is freed from the organic solvents, dried and calcined at 200-950 (700-750) deg.C.

The xerogel is used esp. as packing in liq. chromatography columns, and also a filler for plastics, as catalyst support, enzyme carrier and as absorbent, e.g. for removing poisonous cpds. from animal tissues. Silicic acid xerogel matrix pore vol. can exceed 4 cc/g.

ALFA ★ D16 08036 D/06 ★DE 3025-677

Continuously cold-stabilising wine - by stirring ice crystal-contg. wine in tank to maintain homogeneous ice and tartrate crystal suspension

ALFA-LAVAL AB 09.07.79-SE-005962

(29.01.81) C12h-01

07.07.80 as 025677 (10pp200)

Deep-cooling wine stabilisation takes place by (i) cooling the wine to a first temp. where ice crystals are formed in wine but the wine is still pumpable, (ii) passing the wine to a holding tank where tartrate crystals are formed, (iii) heating the wine to a 2nd temp. at which the ice crystals melt and then (iv) sepg. the tartrate crystals from wine.

Novelty comprises continuously supplying and discharging the wine from the holding tank. In the tank, the wine iskept moving so as to maintain a homogeneous ice and tartrate crystal suspension in the wine. Appts. is claimed.

The process is applicable to grape juice, sparkling wines, high % wines and spirits. The wines can be cold-stored for several weeks without clouding. Holding time is short.

GLAX ★ D16 08062 D/06 ★DE 3027-380

Antibiotic des:acetyl-cephalosporin C prodn. - by fermentation of cephalosporin C producing microorganisms e.g. acremonium chrysogenum in the presence of acetyl:esterase enzyme (NL 21.1.8

GLAXO LTD 19.07.79-GB-025283

B02 (29.01.81) C07d-501/08 C12n-01/14 C12n-09/16 C12p-17/14

18.07.80 as 027380 (21pp280)

In a new process for the prodn. of desacetyl-cephalosporin C (I), a cephalosporin-C-producing microorganism is fermented in the presence of acetylesterase enzyme in an amt. such that practically all of the cephalosporin C produced is converted into (I) before non-enzymatic degradation of the cephalosporin C takes place.

New cephalosporin-C producing microorganisms are those which during fermentation produce acetylesterase in such an amt. that practically all of the cephalosporin C produced is converted into (I) before non-enzymatic degradation of the cephalosporin C takes place.

(I) is useful as an intermediate for cephalosporin antibiotics. Unlike cephalosporin C, it does not undergo non-enzymatic degradation in aq. soln. and culture broths, so that the new process enables increased yield of the cephalosporin nucleus to be obtd. from fermentations.

LIPP/ ★ D16 08067 D/06 ★DS 2946-884

Bio-gas tank bell - carrying toothed racks for mounting chains with biomass agitating blades

LIPP X 21.11.79-DE-946884

P11 (D15) (29.01.81) A01c-03/02 C12p-01

21.11.79 as 946884 (6pp39)

The gas bell of a biomass (liq. manure) fermentation tank is guided by at least two (four) vertical guide tubes with gear teeth. A pinion meshes with each toothed rack and the pinions are joined in pairs to a common shaft. The shafts are equipped with endless chains, passed over a sprocket shaft at the bottom of the tank, which carry stirring paddles.

Arrangement utilises the up-down movements of the gas bell for agitation of the biomass and improves the efficiency of the biogas generation.

SYNT D16 78496 B/43 =EP --22-768

Direct immunoassay method for ligand or receptor determn. - using solid particles as carrier for ligand or receptor

SYVA CO 24.11.78-US-964099 (05.04.78-US-893650)

*A96 B04 J04 (S03) (28.01.81) *NL7902-663 C07h-11/04 C12q-01/66 G01n-33/54*

02.04.79 as 900430 E(CH DE FR GB)

(WP7900882)

SORE/ D16 31080 C/17 =EP --22-784

Methane generation from domestic or livestock manure - in batch operated tank with curved sidewalls preventing solids adhesion

SORENSEN K H 20.09.78-DK-004156

*E17 + P11 (28.01.81) *WP8000-694 A01c-03/02 C02f-11/04 C05f-09/02 C12p-05/02 + C02f-03/28*

13.09.79 as 901203 E(DE FR GB NL SE)

(WP8000694)

FARB ★ D16 08086 D/06 ★EP

Fermentative prodn. of herbicidal piperidine deriv. - compr di:methyl-oxo-cyclohexyl-ethyl-2,6 piperidine:di:one (BR 30.1

BAYER AG 07.09.79-DE-936238 (26.05.79-DE-921401)

C02 (28.01.81) A01n-43/40 C07d-211/88 C12p-01/06 C12 C12r-01/54

21.05.80 as 102819 (37pp367) (G) FR1274358 J53139790 GB FR1352101 4.Jnl.Ref E(BE CH DE FR GB IT LI NL)

Prodn. of (1R,3S,5S, alpha-R) 3-(2-(3,5-dimethyl-2- oxocyclohe hydroxyethyl) 2,6-piperidinedione (I) comprises cu microorganisms of the order Actinomycetales under a conditions in a medium contg. assimilable C and N sourc mineral salts.

Also claimed are (a) herbicides contg. (I), (b) the use of controlling unwanted plant growth, regulating plant growt promoting fruit drop, and (c) microorganisms of the Actinomycetales which produce (I) when cultured as above..

The cpd. (I) can be used as a total or selective herbicide (p post-emergence), defoliant, dessicant, germination inhibitor, drop promoter, etc., and also has fungicidal activity.

FARB ★ D16 08107 D/06 ★EP -

Nikkomycin antibiotics - useful as plant protection agents

BAYER AG 12.07.79-DE-928137

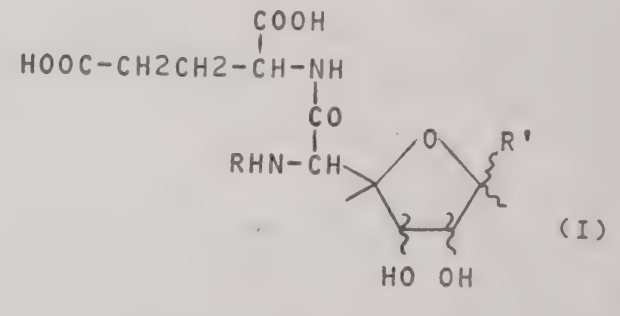
C02 (28.01.81) A01n-63/02 C07c-103/52 C07h-19/04 C12p C12r-01/46

04.07.80 as 103806 (49pp367) (G) NO-CITNS. E(BE CH DE FR LI NL SE)

Nikkomycins I, J, M and N of formula (I) are new

Nikkomycin I is (I) where R is 2-amino-3-methyl-4-hydrox hydroxy-2-pyridyl)butyryl (R1) and R' is 4-formyl-2- imidazolinyl (R'1); nikkonycin J is (I) where R is R1 and R' is 1 tetrahydro-2,4-dioxo 1-pyrimidinyl (R'2); nikkomycin M is (I) R is H and R' is R'1; and nikkomycin N is (I) where R is H and R'2..

The cpds. (I) have insecticidal, acaricidal, nematocidal, fungi and bactericidal activity.



(I)

DRED ★ D16 08113 D/06 ★EP --2

Ergosine alkaloid prepn. - by cultivation of Claviceps purpurea Tul IBP 179, IMET PA 136

VEB ARZNEIMITTEL DRESDEN 16.07.79-DD-214335

B02 (28.01.81) C12p-17/18

07.07.80 as 103856 (12pp1401) (G) DE2801453 DD-129801 4.Jnl.Ref DE FR IT LI)

The preparation of ergosine involves the use of the strain Clav purpurea (Fr.) Tul. IBP 179, IMET PA 136; its mutants or variar

Ergosine is an alkaloid, and it and its 9,10-dihydro deriv. ca used to treat migraines, arterial hypertonia, peripheral vas disorders, disturbances of the brain circulation and car arrhythmia. Ergosine is also a key cpd. in partial syntheses.

The process is economical and as the strain gives sapropl ergosine practically free of by-prods., the complicated sepn. of similar cpds. necessary in previous processes, is avoided. strain is stable, has a high alkaloid prodn. and good ferment properties.

SETA- ★ D16 08215 D/06 ★EP --2

Fermentation chamber to produce methane from organic wa has extra large doorway for fast batch loading and discharging

SETAL SOC ETUD TECH 22.11.79-FR-029204 (19.07.79-018991)

E17 H06 (D15) (28.01.81) C02f-03/28 C12m-01

16.07.80 as 401065 (27pp448) (F) NO-CITNS. E(AT BE CH DE FR IT LI LU NL SE)

In appts. for the aerobic or anaerobic fermentation of veget waste, manure, stable litter etc. in which a batch of waste is lo into a chamber, the chamber now has a doorway in one side whi big enough to allow the vehicle loading of a new batch into chamber. The chamber can be of rectangular cross-section mad of flat, prefabricated units, e.g. of concrete, lined with a impermeable membrane of rubber or flexible patrick.

natively, the chamber can be of horizontal, cylindrical form, f rigid metal or plastic sections which are factory made and bled on site.

chamber can be loaded in stages by a tractor driving in and Alternatively, a complete batch can be wheeled into the er in a cage which stays inside until fermentation is te..

ing and unloading of the chamber is speeded up considerably. ndling is eliminated. Inexpensive factory units can be bled for high output generators of methane.

/ ★ D16 08226 D/06 ★FR 2453-588

ne generation as fuel gas from farm manure - by conveying e through fermenting tunnel

RTRAND B 09.04.79-FR-009397

7 H09 P11 (D15) (12.12.80) A01c-03/02 C12p-05/02

9 as 009397 (5pp448)

ation is for generating methane fuel gas by anaerobic ntation of farm manure, stable litter etc.. While fermenting, anure is conveyed through a horizontal tunnel. The vol. of the is established in proportion to the output of gas required. The cover is pref. of a cross-section similar to a hood. In tion, the open ends of the tunnel become sealed to atmos. by re. This results in a build up of gas pressure inside the tunnel is sufficient to transfer gas to a holding vessel or gasometer. exterior of the tunnel is pref. lagged to retain heat of ntation.

nure can now be conveyed directly to the tunnel from the cattle ump. This inexpensive installation eliminates man-handling of w material right through to the compost stage.

N/ ★ D16 08260 D/06 ★FR 2453-999

o to compress methane driven by low pressure fluid - esp. ane from digester generator or combustion exhaust gas

JRNSEK M 13.04.79-FR-009451

7 Q56 (D15) (12.12.80) F04b-35/02

79 as 009451 (7pp448)

rocating pump or compressor is driven by a supply of low ure fluid. The pump has a piston which is driven backwards rwards in a cylinder. The driven piston has a coaxial piston hich is extended through one end of the cylinder to be fitted a driving piston of much larger dia. than the first piston. The g piston is double-acting inside a low pressure driving cylinder is coaxial with the pump cylinder.

vards each end of its stroke, the driving piston pushes to its l position the outlet valve at that end. Displacement of that actuates a linkage which opens the outlet valve at the other f the cylinder and simultaneous switches motive fluid supply one side of the piston to the other.

e driven piston in the pumping cylinder is pref. double-acting. the pump cylinder is supplied with atmos. air or motive fluid to mpressed or pumped.

lises a low pressure fluid to drive a pump or compressor partic. mpress and deliver methane from an anaerobic digester of nic waste. The low pressure fluid is pref. methane at digester ure, automobile exhaust gas or water from a header tank. le and inexpensive means of pressurising methane for storage d.

D16 92049 A/51 = GB 1583-833

tion of coformycin and related cpds. from aq. soln. - by passing gh weak cation exchanger comprising activated carboxyl as xchange gp.

H BISEIBUTSU KAGAKU KEN 15.03.77-JP-027648

*04 (04.02.81) *J53130-493 C07h-19/04*

78 as 007172 (8pp937)

mycin is sepd. from its mixt. with related nucleosides of ycins, isocoformycin and 2'-deoxycoformycin by subjecting a contg. this mixt. dissolved in water to column chromatography. column comprises a cation exchanger having partially ated carboxylic gps. as the ion- exchange function.

e column is developed with water or a buffer soln. having a pH least 6.6; fractions of eluate flowing out of the column are cted and coformycin is collected and recovered from these ions contg. solely coformycin.

formycin is useful for chemotherapy of tumours.

R D16 86595 Y/49 = GB 1583-889

unostimulant compsn. prepn. - by phenol extraction of roorganisms, fractionation of the protein extract and water oilising

NST MERIEUX 04.06.76-FR-016937

*97 B04 C03 (04.02.81) *BE-855-357 A61k-35/66 + A61k-37*

.77 as 023738 (22pp954)

ical prepn. suitable for stimulating non-specific immunity prises a proteinaceous material extracted with phenol from at least one monocellular microorganism which is a bacterium, yeast or protozoan. The extract is rendered water-soluble with a surfactant or basic aq. soln. and is free from endotoxin and phenol.

Pref. the microorganism is e.g. Neisseria meningitidis Serum gp.A or C, Escherichia coli, Saccharomyces cerevisiae. The prepn. toxicity is negligible and the process is simple and inexpensive.

WELL D16 81213 Y/46 = GB 1583-961

Prostaglandin derivs. - which inhibit blood platelet aggregation, reduce gastric secretion and are vasodilators

WELLCOME FOUNDATION LTD 30.03.77-GB-013389 (11.05.76-GB-019384)

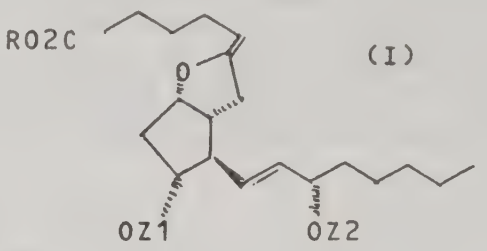
*B02 C02 (04.02.81) *BE-854-463 A61k-31/33 C07d-307/93*

10.05.77 as ------ (8pp982)

Prostaglandins of formula (I) are new. In (I), R is H or a pharmaceutically acceptable cation; and Z1 and Z2 are each H or a hydroxy protecting gp. Specific (I) is (5Z)-5,6-didehydro-9- deoxy-6,9-alpha epoxyprostaglandin F-1alpha.

(I) can be prepd. by the incubation of microsomes of fresh mammalian tissue with a prostaglandin endoperoxide.

(I) are antithrombotics due to their blood platelet antiaggregation activity.



(I)

WELL D16 81213 Y/46 = GB 1583-962

Prostaglandin derivs. - which inhibit blood platelet aggregation, reduce gastric secretion and are vasodilators

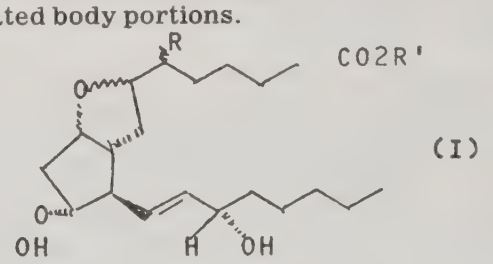
WELLCOME FOUNDATION LTD 30.03.77-GB-013389 (11.05.76-GB-019386)

*B02 C02 (04.02.81) *BE-854-463 A61k-31/33 C07d-307/93*

10.05.77 as ------ Div ex 1583961 (5pp965)

Prostacyclin derivs. of formula (i) are new. R is H, I, Br or Cl, R' is H, 1-4C alkyl or a pharmaceutically acceptable cation. (i) are produced by oxidative attack with a halogenating agent, on the corresp. 5,6-ethylenically unsatd. prostacyclin deriv. (the corresp. O is bonded to an H atom). Pref. halogenating agents are I2, N-bromosuccinimide, and alkali metal triiodide. Pref. reaction is carried out in the presence of a base in a solvent of CH2Cl2 or ether.

(I) have anti-aggregatory action on blood platelets and have a vasodilatory action on blood vessels. They may be used as anti-thrombotic agents, hypertensives and wound healing agents. They are useful in fluids used in artificial extra-corporeal circulation and perfusion of isolated body portions.



(I)

ALBR D16 84795 Y/48 = GB 1584-035

Isomerised hop extract prepn. - by extracting alpha acids with organic solvent, forming metal salts of the acids afer acidification in non-polar solvent and heating

ALBRIGHT & WILSON LTD 29.07.76-GB-031620

*(04.02.81) *BE-857-306 C07c-49/59*

26.07.77 as ------ (6pp931)

An isomerised hop extract is prepd. by extracting alpha-acids from hops with an organic solvent; contacting a soln. of the extract in a water-immiscible non-polar organic solvent with anhydrous alkali or alkaline earth oxide, hydroxide or carbonate or zinc oxide to form anhydrous metal salts of the acids; and heating to isomerise the salts. The alpha-acids are strongly acidified before forming the metal salts.

Pref. the extraction is effected using a hydrocarbon or halo-carbon solvent, and the extract is recovered from the solvent on evaporation then redissolved in the non-polar solvent. Isomerisation occurs in soln. in the extracting solvent.

The extraction process removes the bitter principle from hops used in beer.

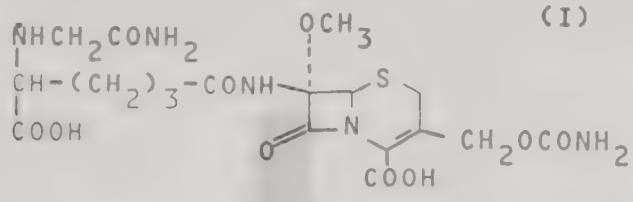
RANG D16 91709 A/51 = GB 1584-103
Aerobic fermentation acceleration - by upper-paddle mixer circulating biological mass and lower dispersing oxygen
RANK HOVIS MCDOUGAL LTD 01.06.77-GB-023128
*(04.02.81) *DE2823-923 + B01f-03/06 B01f-07/16 B01f-15/06*
26.05.78 as ------ (12pp1376)
In a fermentation process one impellar circulates the biomass and a second impellar creates a fine dispersion of O2, the impellers being driven at different speeds.
Pref. all the cells in the biomass are completely circulated in 10 to 30 secs. The impellars are arranged one above the other, the upper producing an axial downward flow and the lower a radial outward flow. Fermentation can be controlled more easily.

WINT ★ D16 08324 D/06 ★GB 2053-182
Oil sepn. from earth, water or adsorbents - by mixing with microbial glyco:lipid compsn.
WINTERSHALL AG 16.07.79-DE-928674
H03 (H05) (04.02.81) C02f-01/26
28.03.80 as 010654 (4pp367)
Sepn. of oil from inland earth and/or water and/or from materials used for adsorption of oil is carried out by mixing the comminuted oil-contg. material with microbially produced glycolipids (I) to form an aq.slurry, and separating the slurry into an oil-contg. upper phase an an aq. lower phase.
The oil phase can be processed to produce technically useful prods. and the aq. phase can be discharged, e.g. into sewerage systems. The process can be carried out on site using special mobile appts.

NICH- ★ D16 08372 D/06 ★J5 5089-306
Low viscosity starch-PVA graft copolymer - prepd. by treatment with acid or enzyme or by heating
NICHIDEN KAGAKU KK 26.12.78-JP-162503
A11 (A14) (05.07.80) C08f-08/50 C12p-01
26.12.78 as 162503 (3pp75)
Prepn. of low viscosity starch - PVA graft copolymer, comprises subjecting PVA grafted starch to treatment with an acid, with an enzyme or roasting, thereby lowering its viscosity.
Gelatinised grafted starch of low viscosity and of high concn. can be prepd., and its rheological properties are also improved.
The vinyl ester may be vinyl acetate, vinyl formate, vinyl propionate, trifluorovinyl acetate, t.-butyl vinylether or vinyl trimethyl silyl ether (sic). Vinyl acetate is pref. from the viewpoint of cost and availability.

SHIO ★ D16 08388 D/06 ★J5 5143-996
Antibiotic PA-32413-I prepd. from Streptomyces clavuligerus - i.e. 7-alpha-methoxy-7-beta-((5-carbamyl methylamino) adipolyamino)-3-carbamoyloxy methyl-3-cephem 4-carboxylic acid
SHIONOGI KK 26.04.79-JP-052177
B02 (10.11.80) A61k-31/54 C07d-501/57 C12n-01/20 C12p-35 C12r-01/46
26.04.79 as 052177 (6pp69)
Antibiotic PA-32413-1, i.e- 7alpha-methoxy-7beta-((5- carbamoyl-methylamino)adipolyamino)-3-carbamoyl- oxymethyl-3- cephem-4-carboxylic acid of formula (I) and its salts are new. Antibioitic PA-32413-I is produced comprises culturing antibiotic PA-32413-I-producing strain of Streptomyces genus in culture medium and taking out antibiotics PA-32413-I. Streptomyces clavuligerus PA-32413 (FERM-P No. 4925), is pref. used.
The antibiotic have antimicrobial power and they are useful as antimicrobial agent and intermediates for the synthesis of cephalosporin antibiotics.

(I)



MATW ★ D16 08401 D/06 ★J5 5152-800
Decolourising process - comprises pretreating prod. e.g. wood veneer, with hydrogen per:oxide decomposing accelerator, and then hydrogen per:oxide
MATSUSHITA ELEC WORKS 18.05.79-JP-061901
F09 P63 (28.11.80) B27k-05/02 C11d-07/54
18.05.79 as 061901 (3pp126)
The decompsn. accelerator is at least one of the heavy ion generating materials e.g. salt and enzyme e.g. catalase.
Prods. to be decolourised, partic. H2O2 is decomposed actively and completely and no H2O2 remains. Undesirable effects due to the residual H2O2 such as the decompsn. of the dyestuff used for the dyeing of the veneer, is avoided. Regulation of the liq. temp. or pH is unnecessary.
Typically a sheet of agarised veneer of 1.0 mm thickness immersed in an aq. soln. of H2O2 decompsn. accelerator (Co nit of 50 ppm concn.) at 30 bath ratio. The pretreatment was perfor by boiling for 1 hr. The veneer was then immersed in 5wt.% H2O2 soln. for 4 hrs. at ordinary temp. The residual amt. of H2O2 in veneer after the decolourisation was 0 ppm and the degree of decolourisation (L value by the colourimeter) was 82.

MITU ★ D16 08444 D/06 ★J5 515
Autolysis method by treating microbial body with alkali suppress putrefaction during autolysis and obviate the use of l amts. of sodium chloride or organic solvents
MITSUBISHI CHEM IND KK 17.05.79-JP-060895
(D13) (29.11.80) A23l-01/28 C12n-01/06 C12r-01/13
17.05.79 as 060895 (5pp5)
Method involves treating living microbial body at pH above esp. 11.5-12.5 at 5-30 deg.C with alkali so that the microbial body be dyed with methylene blue and then autolysing at pH 5-9 and 3 deg.C.
By this method yeast extract which is free of sodium chloride organic solvent, can be prepd. Alkali-treatment may be stop when above 50% of the yeast body can be dyed with methylene b Pref. the yeast body is treated in aq. alkaline soln. contg. calc hydroxide and after removing most of the alkaline soln. adjuste pH 5-9 with aq. acid soln. contg. phosphoric acid.

GREC ★ D16 08445 D/06 ★J5 5153
Plasmin free plasminogen prepn. from human serum - by contac aq. soln. with protease-inhibitors e.g. trypsin-inhibitor
GREEN CROSS CORP 17.05.79-JP-060729
B04 (29.11.80) A61k-37/47 C12n-09/68
17.05.79 as 060729 (4pp5)
Plasminogen free of plasmin is prepd. by contacting the cr plasminogen soln. with fixed natural plasmin-inhibitor wh adsorbs the plasmin.
Protease;inhibitors e.g. trypsin-inhibitor from soy bean, hur urine, etc. can be used as the plasmin inhibitors. The inhibitors fixed to the water insoluble organic or inorganic high mole substances with carboxyl and amino gp., etc. via chemical bon The contacting occurs at 3-25 deg.C at pH 6-8. 100 ml of the inhib can adsorb 3000-5000 CU(casein unit) plasmin at pH 7.8 in the soln ionic strength 1.5M and can not adsorb plasminogen. After use fixed inhibitor can be regenerated by washing with aq. acidic soln pH less than 4 or with aq. salt soln. having high salt concn.
By this method plasm free plasminogen can be prepd. from hun serum.

MATU ★ D16 08446 D/06 ★J5 5153
Enzyme fixation on high molecular carrier - having amino, imin thio gps., using fixing agent in gaseous phase
MATSUSHITA ELEC IND KK 21.05.79-JP-062472
A96 B04 (29.11.80) C12n-11
21.05.79 as 062472 (4pp5)
The method is to fix enzymes by coating the surface of carrier w enzyme and using fixing reagent and is characterised by supply the fixing reagent in gaseous phase.
High molecular cpds. having -NH2, :NH or -SH gp., can be u and their examples are polyethyleneimine, polyornithi polylysine, polyarginine, polyalbumin, etc. The fixing reagent glutaraldehyde, crotonaldehyde, acrolein, glyox paraformaldehyde, etc.
Enzymes can be fixed with little redn. in enzymic activity and th obtd. fixed enzyme can be used for enzymic reaction continuou and repeatedly. The concn. of the fixing reagent in gaseous ph can be easily controlled and the fixing reaction can be eas controlled. Further the coated enzyme layer can be fixed as it is a uniform fixed enzyme layer can be obtd. By the invented met enzymes can be fixed freely on concavo-convex surface, curv surface, etc.

TOYM ★ D16 08447 D/06 ★J5 5153-
12-Keto:chenodeoxycholic acid prodn. - by action of brevibacteri on de:hydro:cholic acid, used in chenodeoxycholic acid prodn.
TOYOBO KK 10.05.79-JP-057419
B05 (29.11.80) C12p-33/06 C12r-01/13
10.05.79 as 057419 (5pp52)
Prodn. of 12-ketochenodeoxycholic acid (I) comprises contactin strain of Brevibacterium which can convert dehydrocholic acid (into (I).
The culture for conversion of (III) to (I) is effected in station anaerobic conditions at 30-37 deg.C and pH 6.5-8.5 for 2-7 da Alternatively, the organism may be cultured under aero conditions (aeration and agitation) in order to grow within a sh period of time, and then brought into contact with (III). When

fixed organism is employed, glucose is added as energy to the medium to regenerate coenzyme NADH. The fixed m is fixed with acrylamide.

s converted on the Huang-Minlon reaction into eoxycholic acid (II) which has a cholelith dissolving action on min. The invention provides a cheap raw material for prepn.

★ D16 08648 D/06 ★J5 5154-464
of B sensitised erythrocytes - comprises treating with de, combining with immune globulin M and linking with ement
SHIBA KAGAKU KOGY 21.05.79-JP-061517
(02.12.80) G01n-33/50
9 as 061517 (3pp173)
-sensitised erythrocytes for testing lymphcytes are prepd. by ess comprising (1) treating animal erythrocytes (pref. sepd. lood of sheep, etc.) with aldehyde, (2) combining the treated ocytes with immune globulin M, and (3) combining the ne globulin M linked with the erythrocytes with complement omplement sepd. from the blood serum of mouse).
erythrocytes are suspended in phosphate buffer soln. (pH 7.0- ntg. 0.01-1.0wt.% of glutaraldehyde and treated at 28 deg.C to se the cell membrane. After washing with phosphate buffer the erythrocytes are treated with immune globulin M prepd. rabbit blood immune from sheep erythrocytes, and then with ement prepd. from blood serum of mouse. The erythrocytes ned with complement through immune globulin M are capable mbining with B cells of lymphocytes, and can be used for mining B-cell/T-cell ratio.
B-cell-sensitised erythrocytes prepd. by this process are very and can be stored about 1 month or longer without oration of sensitivity to B cells.

★ D16 08719 D/06 ★J5 5154-916
gesic and antiphlogistic compsns. - contg. kojic acid prepd. aspergillus by kojic acid fermentation
NSEI SEIYAKU KK 22.05.79-JP-063722
3 (02.12.80) A61k-31/35 C07d-309/40
79 as 063722 (4pp69)
gesic antipholgistics contg. Kojic acid can be admin. by ion, internal admin. or by external applicn.
ic acid is prepd. from aspergillus genus of microbe e.g. gillus oryzae, by kojic acid fermentation. The microbe is lated into the culture medium and subjected to stationary or en culture at 25-35 deg.C for 5-10 days and kojic acid is extracted the culture liquor with a solvent e.g. ethyl acetate and stallised to give kojic.

★ D16 D/06 ★J5 5154-994
biotics A-6888C and A-6888X
LI LILLY & CO 23.05.79-US-041580
04 (02.12.80)

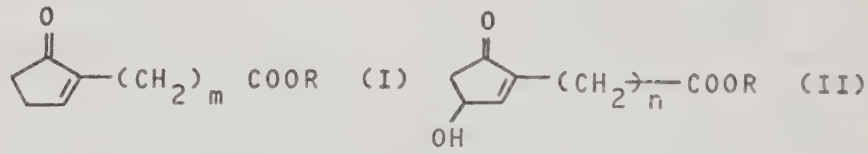
D16 51403 B/28 =J8 1001-070
uble glucan decomposing enzyme prodn. - by culturing oorganism of Pseudomonas genus, for treatment of dental s
H BISEIBUTSU KAGAKU KEN (BISE) 02.11.77-JP-131988
*04 (D21) (10.01.81) *J54067-092 A61k-07/28 + C12n-09/24 C12r-1/38*
.77 as 131988 (5pp69)
process comprises culturing insol. glucan decomposing enzyme- g. microorganism of Pseudomonas genus and removing prod.
sol. glucan decomposing enzyme (alpha-1, 3-glucanase) may be for prevention of cure of dental caries by blending the enzyme tooth-powder, chewing gum, troches or cleaning agent for oral ty. Example of fungi is Pseudomonas SK-01. (J54067092)

B D16 82011 X/44 =J8 1001-071
yme prodn from Steffen's waste - for hydrolysing crystallisation bitors of sucrose to increase sugar yield
NIPPON BEET SUGAR KK 10.03.75-JP-028016
*D17) (10.01.81) *J51104-088 + C12n-09/40 C12r-01/64*
3.75 as 028016 (4pp)
hod for preparing microbial bodily enzymes of mould fungi lucible alpha-galactosidase. The method comprises neutralising ffen's waste with gaseous carbon dioxide, sulphuric acid or sphoric acid, filtering it, opt. concentrating the filtrate, rolysing it with acid or invertase, adding the hydrolysate to the ure medium and culturing it.
ould fungi can be cultured utilising Steffen's waste which can be . inexpensively in large amt. Mould fungi such as Absidia nieri, Penicillium decunbens, Synthehalastrium racemosm, Rhizopus lignicans, etc. are applied for the culture. The enzyme can be applied for hydrolysing inhibitors for crystallisation of sucrose in beet sugar solns. such as raffinose, galactose, melibiose, etc. by which the sugar yield can be increased. (J51104088)

HOKA D16 41760 X/22 =J8 1001-072
Alpha galactosidase prodn. - by culturing moulds of genus absidia in inducer contg. medium
HOKKAIDO SUGAR KK (HOKK) 03.01.75-US-538468
*(10.01.81) *US3957-578 + C12n-09/40 C12r-01/65*
05.01.76 as 000380 (12pp)
Alpha-galactosidase (I) is made by culturing a mould Absidia griseola (ATCC No. 20430) or Absidia griseola var. iguchii (ATCC No. 20431) in a culture medium contg. substances (II) inductive of (I) under conditions permitting the formation of (I).
The process produces high alpha-galactosidase activity and absolutely no invertase activity is produced in the mycelia. By treating beet molasses or beet juice with these mycelia, the yield of sucrose can be enhanced since raffinose (which hinders crystallisation of the sucrose) is effectively decomposed and sucrose is allowed to remain intact. (II) is e.g. lactose, melibiose, raffinose or galactose. (J51091387)

HOKK- D16 43220 A/24 =J8 1001-073
Alpha-galactosidase prepn. - by culturing mould strain of Circinella in a medium contg. inducing substance for alpha-galactose
HOKKAIDO TOGYO KK 00.00.77-JP-124118
*S03 (10.01.81) *J53050-392 + C12n-09/40 C12r-01/64*
31.01.75 as 124118 (8pp5)
Method comprises culturing a mould strain Circinella Muscae (Berlese et de Toni) nova typica coreanus in the culture medium contg. the inducing substance for alpha-galactosidase under the conditions that alpha-galactosidase can be formed. The mould body contg. alpha-galactosidase is then contacted with beet juice to decompose the raffinose.
Mould body can be obtd. in pellet form and can be sepd. easily by centrifuging, etc. As the inducing substance for alpha-galactosidase raffinose, lactose, melibiose, etc. can be applied. The culture is practiced under common aerobic culturing condition for moulds at pH 5-8 at ca. 30 deg.C for 40-72 hrs.
Raffinose in beet juice which inhibits the crystallisation of sucrose in beet juice, can be decomposed effectively and sucrose yield on beet can be increased. Alpha-galactosidase has high activity and treatment of beet juice can be practiced industrially using small equipment. (J53050392)

TEIJ D16 43224 A/24 =J8 1001-075
Hydroxy-cyclopentenone derivs. prepn. - by culturing strain of Aspergillus genus in medium contg. cyclopentenone deriv., useful as phar.naceutical intermediates
TEIJIN KK 00.00.77-JP-124464
*B05 C03 (10.01.81) *J53050-396 + A61k-31/12 C07c-177 C12p-01/68 C12p-07/38*
14.05.74 as 124464 /77 (7pp69)
Hydroxycyclopentenone derivs. are prepd. by culturing fungi strain of Aspergillus genus in culture medium contg. cyclopentenone derivs. of formula (I), (where R is H or lower alkyl; m is 2-6). Prods. have formula (II), (where n is equal to m or (m-2)).
Cpds. (II) are useful as intermediates for the synthesis of pharmaceuticals such as prostaglandin or its relative derivs. having depressing action, unstriated muscle contacting action, antiphlogistic action, etc. Cpd. (II) (where n/6) has physiological action such as blood platelet coagulation-inhibiting action and depressing action.
As fungi, Aspergillus niger ATCC 9142 strain may be used. As culture medium may be one where mould is cultured and medium contg. d-glucose as carbon source for growth of fungi body is pref. (J53050396)



AJIN D16 51404 B/28 =J8 1001-077
Purificn. of aminoacid produced by fermentation from waste molasses - using ion exchange membrane following pretreatment with anion exchange resin
AJINOMOTO KK 07.11.77-JP-133298
*B05 E19 (10.01.81) *J54067-093 + C12p-13/04*
07.11.77 as 133298 (2pp22)
In purifcn. of the desired amino acid contained in amino acid fermentation mixt. with the use of waste molasses by the use of ion exchange membrane, the fermentation mixt. is pretreated with anion exchange resin. Dialysis speed of the amino acid by the exchange membrane is thus increased, and thus efficient purifcn.

can be attained.

The wastemolasses may be any conventional type. The amino acid may be Glu, Lys, Glu(NH2), Ileu, Leu, etc. The resin is used in the form of OH, or Cl. The flow rate of the fermentation mixt. into the resin is 10-50 RV. The ion exchange membrane may be any conventional type. The fermentation mixt. is pref. at first subjected to removing the cell body, for example, by coagulation and filtration. (J54067093)

AJIN D16 61502 U/41 = J8 1001-078

L-lysine prodn - by fermentation of brevibacterium and coryne bacterium strains

AJINOMOTO KK 19.09.72-JP-094030

*B05 E16 (10.01.81) *BE-798-890 + C12p-13/08 C12r-01/15*

19.09.72 as 094030 (3pp)

In the title process the microorganism yielding lysine is not inhibited by lysine or its analogues (esp. by S-(2-aminoethyl)-L- cysteine) but requires serine, proline adanine, micotenamide, pantothenic acid, thiamine guanine, hypoxanthine or Vit B12 for growth.

In an example Brevibacterium lactofermentum Y 108 (ATCC 21798) cultivated in a medium contg. glucose, (NH4)2SO4.Mg SO4 Fe++ and Mn++ ions, thiamine and biotin gave L-lysine (I) at rates of 4.1 g/dl. (J49048891)

ARIM/ D16 56513 Y/32 = J8 1001-079

Microbiological preparation of (3)-oxo-bis norcholadienic acid - by culturing corresp. microorganisms in a medium contg. sterol or its derivs. and chelating agent to improve yield

ARIMA K 23.12.75-JP-152800

*B01 (10.01.81) *J52076-484 + C12p-33 C12r-01/**

23.12.75 as 152800 (4pp140)

3-Oxobisnorchola-1,4-dienic acid is useful as a raw material for prepg. hormonal steroids. It is prepd. by culturing a microorganism capable of converting sterols or their derivs. with dehydrogenation A-ring.

Typical microorganisms are Nocardia cholarina IFO 3338, N. erythropolis NI 9110 FERM-P 3315, Mycobacterium albium IFO 3082, Protaminobacter alboflavus IAM 1040, Bacillus roseus IAM 1257, Mycrobacterium lactam IAM 1640 FERM-P 3317, Serratia marcescens IAM 1225 FERM-P 3316, etc. The medium contains sterol (e.g., cholesterol, beta-sitosterol, gamma-sitosterol, campesterol, ergosterol, stigmasterol, etc.) or an A-ring dehydrogenated deriv. (e.g., 4-en-3-one cpds., 1,4-dien-3-one cpds. etc.). It also contains a chelating agent capable of forming a complex salt with iron or copper, or a nickel or cobalt ion.

The starting sterol or a dehydrogenated deriv. is added to the medium in the form of fine powders or soln. in solvents or suspension in water. The desired cpd. is produced at an extremely high yield.(J52076484)

GREC ★ D16 08985 D/06 ★J8 1001-289

Mfg. prepn. for treating disease due to Pseudomonas aeruginosa - by cultivating P aeruginosa, suspending in water, mixing with trichloroacetic acid soln. etc.

GREEN CROSS CORP 30.07.73-JP-086232

B04 (13.01.81) A61k-39/10

30.07.73 as 086232 (9pp22)

Pseudomonas aeruginosa is cultivated and suspended in water, mixed with trichloroacetic acid soln., precipitates are removed, ethanol is added to give precipitates, followed by gel filtration to give lipo polysaccharide. (J50035308).

ALFA ★ D16 09003 D/06 ★NL 8003-504

Continuous fermentation process for ethanol prodn. - using separators of small capacity ensuring recirculation of yeast without damage

ALFA-LAVAL AB 06.07.79-SE-005916

E17 (08.01.81) C12p-07/08

17.06.80 as 003504 (7pp1014)

A stream contg. yeast, derived from the fermentation of a substrate contg. carbohydrates, is sepd. into a yeast concentrate and a yeast-free stream, in a process for the prodn. of ethanol.

The fermentation fluid is delivered directly to a single vapouriser which corresps. to one or only a few distn. stages, in which reduced pressure is maintained. In this the fluid is sepd. partly into a first stream of vapour enriched in ethanol, which is transferred to a plant for producing the desired quality of ethanol, and partly into a first, fluid, yeast-contg. bottom stream. Part of this is recirculated to the fermentation plant, whilst the remainder is sepd. into at least a yeast concentrate stream which is recirculated to the fermentation plant, and a yeast-free stream. This is fed to a strip unit in which it is separated partly into a second ethanol-enriched stream of vapour, and partly into a second fluid bottom stream from which the ethanol is exhausted. For pref. the second ethanol-enriched stream is delivered to the single vapouriser

A process in which the capacity of the sepg. units can be relatively small, but in which the yeast can be recirculated without damage. At the same time ample scope is given as regards the selection operating parametersfor obtaining ethanol by distn.

IOWA ★ D16 09008 D/06 ★NL 8

Infectious bovine rhinotracheitis vaccine - contg. virus mem protein solubilised with nonionic detergent

IOWA STATE UNIV RES INC 09.07.79-US-055821

B04 C03 (13.01.81) A61k-39/26

04.07.80 as 003889 (20pp367)

Injectable vaccines for prophylaxis of infectious rhinotracheitis (IBR) contain an effective amt. of IBR membrane protein produced by (a) culturing virulent IBR vir cell culture, (b) sepg. the infected cells, (c) contacting with soln. of a nonionic detergent, and (d) sepg. the resulting aq from the insoluble residue. The vaccine can also conta immunoadjuvant, pref. a water-immiscible oil. The unit dose i 2 ml. contg. 4-8 mg total protein. Tne vaccine is pref. free of IBR virus.

The vaccines produce a greater antibody response than k vaccines and also inhibit release of IBR virus, thus preve transfer of the disease to non-vaccinated animals.

ASAH ★ D16 09011 D/06 ★NL 80

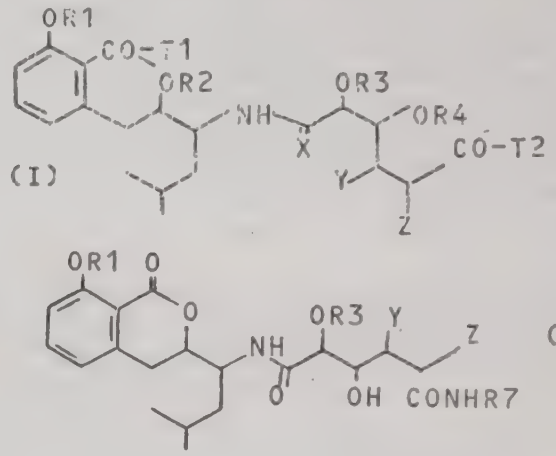
Fermentative prodn. of salicylic acid derivs. and analogues - as antiulcer and antiinflammatory agents

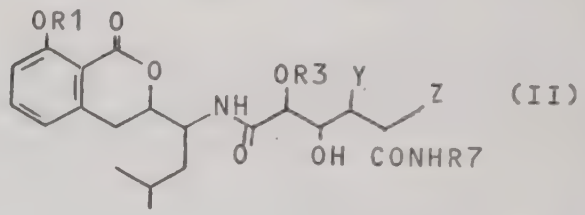
ASAHI KASEI KOGYO K 12.05.80-JP-061685 (11.07.79-JP-08

B05 (13.01.81) C07c-101/02 C07d-307/32 C07d-309/30 C07d-C12r-01/07

10.07.80 as 003985 (221pp367)

Salicylic acid derivs. of formulae (I) and (II) and their salts are (where X is NH, NR or O, Y is NHR5 and Z is H, or Y + Z is a R1, R3 and R5 are H, R1, CH2R or COR. R7 is H, R or CH2R. R 17C aliphatic gp., a 6-10C aromatic gp., a 7-10C cage-type gp., a monocyclic aliphatic gp., a 7-15C araliphatic gp. or a heterocyclic hydrocarbon gp., all opt. substd. by halogen, COOH, OH, 1-5C aliphatic, 6-10C aromatic, 3-8C monoc aliphatic, 7-11C araliphatic, 1-5C alkoxy, 1-5C alkylthio, alkoxycarbonyl, 1-5C acyl, 2-6C acyloxy and/or 1-9C heteroc gps. R1 is as defined for R with the exception of gps. in whic unsatd. or tert. C atom is bonded directly to O or N.





KONN ★ D16 D/06 ★PT --?

Prepn. of polyvalent virus vaccine - for protection against ra etc.

GIST-BROCADES NV 17.07.79-GB-024916

B04 C03 (14.01.81) A61k

AGRO- ★ D16 D/06 ★RO --(

Genetic tuberculosis-resistant taurine identification - by identi gene marker by blood protein exhibited through quickly migr haemoglobin

INST AGRONOMIC 28.06.73-RO-075299

B04 (30.03.80) C12k-01/02

NICO- ★ D16 D/06 ★RO --?

Cytomegallic antigen prepn. - comprises human embryo cu inoculation with human cyto-megallic virus stem, centrifugi dispersion and ultrasonic treatment

NICOLAU INST VIRUSO 19.04.78-RO-093847

B04 (30.03.80) A61k-39/12

BIOS- ★ D16 D/06 ★RO --?

L-Lysine producing Corynebacterium melassecula muts produced by stem irradiation with gamma radiation

INTR BIOSINTEZE(INSC) 14.08.78-RO-093803

B05 E16 (30.03.80) C12k-01/02

★ D16 D/06 ★RO --73-783
bilising enzymatically active microorganism cells - by addn.
ulose tri:acetate in chloroform soln. and solvent removal
ST IND CHIM ALIM 31.03.76-RO-085374
6 B04 (30.03.80) C12k-01/06

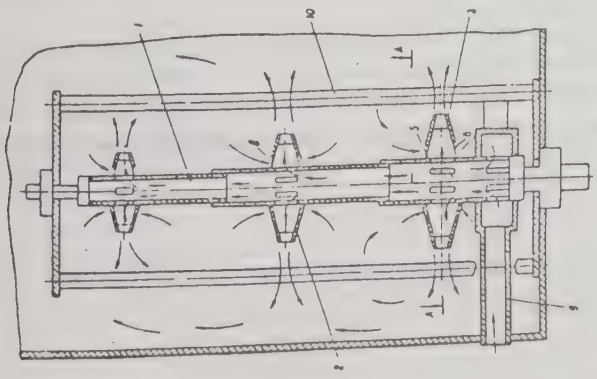
★ D16 D/06 ★RO --73-860
ating Haemophilus gallinarum paragallinarum bacteria - in
en broth culture medium contg. chicken serum additive and
eer yeast extract
ASTEUR INST VETERI 01.06.78-RO-094241
.03.80) C12k-05

★ D16 D/06 ★RO --73-881
tious Aviary bursitis diagnosis antigen prepn. - by cultivating
on pig and calf kidney cell cultures
ASTEUR INST VETERI 07.06.78-RO-094280
04 C03 (30.03.80) C12k-05

E= ★ D16 D/06 ★SE 7904-897
inary vaccine for treating trichophyton infections - prepd. by
re of trichophyton mentagrophytes strain
XP VETERINARY INST 05.06.79-SE-004897
04 C03 (19.01.81) A61k-39
6.79 004897 (-pp903)
vaccine for treating Trichophyton infections compris-
suspension of 15-25 million microconidia of an
unogenic strain of Trichophyton mentagrophytes (I)
ml. physiological soln. of pH 6.2-7.
Prodn. is by culture of a suitable strain of (I), e.g.
35/1963 (Soviet Union Institute of Experimental
eniary Medicine) on a conventional nutrient at 26-28
C for 15-30 the biomass, homogenising and drying.
prod. can be used to treat animals, e.g. foxes,
foxes.

N= ★ D16 09066 D/06 ★SU -738-571
obiological plant pesticide prodn. - includes sepn. of beauveria
iana biomass in presence of calcium carbonate, surfactant and
ed silica and addn. of sulphite liquor
LANT MICROBIOL PRO 05.06.78-SU-624056
03 (05.06.80) A01n-15
.78 as 624056 (2pp70)
on. Boverin (RTM) protecting plants against pests is produced by
-cultivating fungus Beauveria bassiane, concentrating the
ass and drying it in a fluidised bed.
e virulence of the prepn. is increased and the process is
lerated by concentrating the biomass by precipitation under the
on of a compsn. contng. (in wt.%) CaCO3 33-39, a surfactant 7-9
white soot (powdered silica gel) as the balance. The supernant
d is decanted to a residual concn. of the solids amounting to 15-25
%. Before the drying, 5-8 wt.% (w.r.t. the biomass) of a sulphite
or is added. The product is added in an amt. of 24-27g to 100g. of
culture liquid.

C/ ★ D16 09108 D/06 ★SU -738-649
obiological e.g. yeast nutrient aerator - has clogging prevention
itions forming mixing chambers on both sides of aeration blades
CHECHURA A A 17.07.75-SU-157333
02 (08.06.80) B01f-05/16
7.75 as 157333 (3pp132)
aerator comprises a hollow sbaft carrying a rotor made as two
cated-cone discs with their large bases facing each other and
ng hollow blades between them. To increase mass transfer,
itions are fitted to the discs on both sides of the blades and from
ing cbambers.

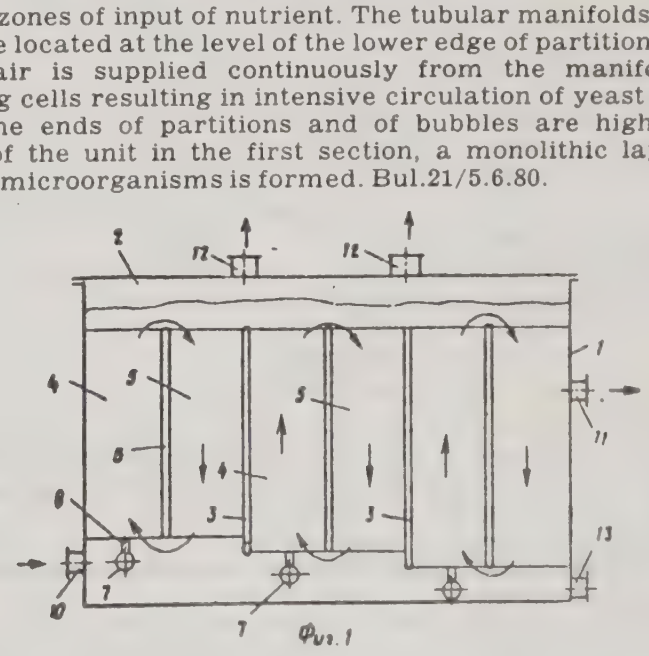


CSMA= ★ D16 09259 D/06 ★SU -739-023
Binder for structural units extrusion casting - contg. building grade gypsum and yeast autolysate from fodder supplement mfr
CONS MATER STRUCT 17.10.78-SU-676968
L02 (06.06.80) C04b-11/09
17.10.78 as 676968 (3pp124)
Use of autolysate of yeast biomass grown on the paraffins extd. from petroleum oil as the additive(I) to the gypsum(II)-based binder, increases its setting times thus making it possible to mfr. articles by extrusion.
The additive (I) which is used normally as a supplement in e cattle fodder, consists of a mixt. of some 17 essential aminoacids of total conc. 43.25%, and replaces a more expensive casein glue(III).

AAZP= ★ D16 09313 D/06 ★SU -739-082
Purificn. of liquid paraffinic hydrocarbon fraction - by treatment with alpha-epichlorohydrin selective solvent, used in microbiological protein - vitamin concentrate mfr.
AS AZERB PETOCHEM 01.08.77-SU-526561
E17 H02 (E13) (05.06.80) C10g-43/16
01.08.77 as 526561 (4pp314)
A high degree of purificn. of petroleum liquid paraffins fraction is achieved and selective solvent consumption is low if the extn. of aromatic cpds. is carried out pref. at 50-60 deg.C at a solvent: feedstock ratio of 2.0-2.5:1.
In a prefd. process liquid paraffins contg. 0.5-0.6 wt.% aromatics are de-aromatised by stirring the paraffins and solvent mixt. at 1000 rpm. for 1 hr. A prefd. process is multi-staged.

BBEL= ★ D16 09318 D/06 ★SU -739-087
Microorganisms culture unit - has inclined shaft carrying trays with overflow edge of top tray projecting outside one below
BELO BELGIPROBNOSIN 18.11.77-SU-545715
(05.06.80) C12b-01/08
18.11.77 as 545715 (3pp89)
The efficiency of microorganisms culture unit production of bacteria preparations is improved by preventing ingress of spent fluid onto lower trays. It also facilitates the removal of dry film of microorganisms and also enhances the washing of the unit. The shaft is inclined to ensure that the overflow edge of the above held tray projects outside the similar edge of the tray below it. Each tray is superimposed by a scraper free to turn in the vertical plane, the working surface of the scraper matching the tray profile.

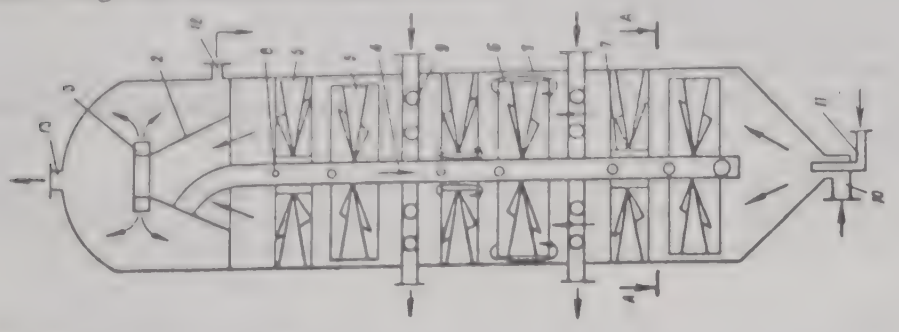
LENI ★ D16 09319 D/06 ★SU -739-088
Microorganisms culture unit - has sections with partition length increasing in direction of culture fluid flow
LENINGRAD LENSOVET TECH 21.03.77-SU-464674
(05.06.80) C12b-01/10
21.03.77 as 464674 (3pp89)
Increased specific yield of microorganisms culture unit is due to length of each successive partition being greater than the preceding one. The lower edges of the partitions are stepped to form at the bottom zones of input of nutrient. The tubular manifolds of bubbling cells are located at the level of the lower edge of partition.
The air is supplied continuously from the manifold via the bubbling cells resulting in intensive circulation of yeast suspension. Since the ends of partitions and of bubbles are high above the bottomof the unit in the first section, a monolithic layer of fluid without microorganisms is formed. Bul.21/5.6.80.



Фиг. 1

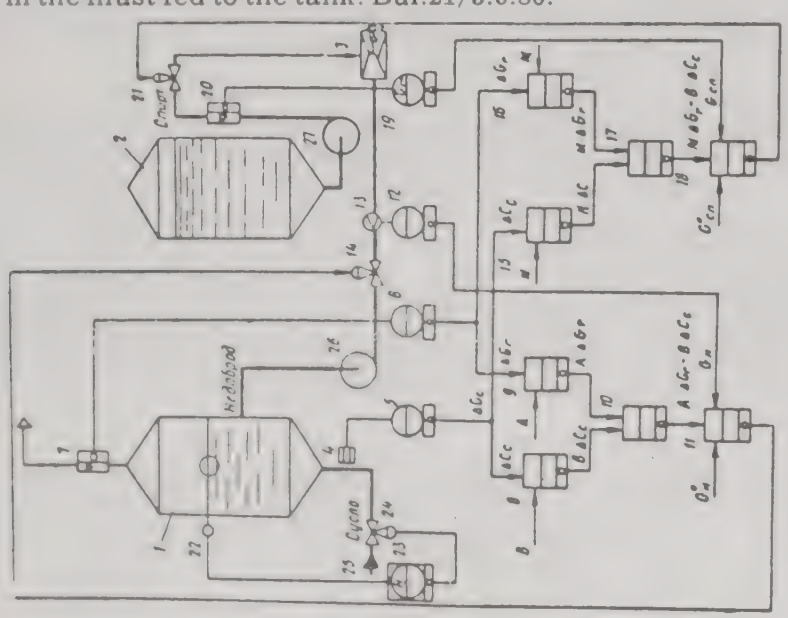
BEKI ★ D16 09320 D/06 ★SU -739-089
Microorganisms culture unit - has tray with radially inclined plates leaving clearance for culture fluid flow
BELORUSS KIROV TECHN INS 03.11.77-SU-540147
(05.06.80) C12b-01/10
03.11.77 as 540147 (3pp89)
Intensified mass exchange between the gas and fluid in the unit for microorganisms culture is achieved by increased turbulisation of

the medium along the height of the tank. The trays are made up of rows or radially sloping plates held to leave a clearance for the passage of the culture fluid. Cylindrical shells bound the trays and their height exceeds the height of trays.



MELN/ ★ D16 09321 D/06 ★SU-739-090
Microorganisms growing unit - has one of two columns with ascending flow and central tube connected to deaeration chambers
MELNIKOV I A 25.11.77-SU-546616
(05.06.80) C12b-01/10
25.11.77 as 546616 (4pp89)
The efficiency of microorganisms growing on nutrient media with different rheological properties is improved with the central pipe in the column of ascending flow. The top and bottom of the pipe are outside the column whose sections are set along a helical line around the pipe. The sections are divided by partitions which do not reach the bottom forming communicating chambers of aeration and deaeration of culture fluid. Holes of the central pipe provide a link between the latter and the deaeration chambers.

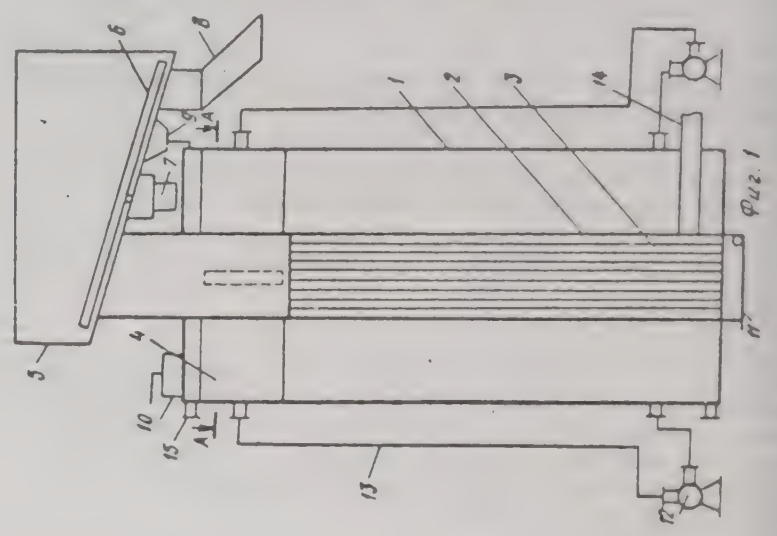
DAGE = ★ D16 09322 D/06 ★SU-739-091
Continuous fortified wine prodn. - with alcohol and partly fermented wine stock flows controlled by carbon di:oxide prodn. and sugar utilisation rates
DAGESTAN FOOD IND 06.02.76-SU-324781
T06 X25 (05.06.80) C12c-11
06.02.76 as 324781 (4pp89)
The flow of wine material with a set level of fortification and sugar content derived from a must of variable sugar content is achieved by measuring the amt. of incompletely fermented material and of alcohol.
The flow rate of both constituents is then adjusted as a function of difference between the measured and set values which are determined in dependence of the flow of CO_2 and of the concn. of sugar in the must fed to the tank. Bul.21/5.6.80.



VOTE = ★ D16 09323 D/06 ★SU-739-092
Fruit pulp fermenter - has partly perforated spiral partition attached to bottom and vibrator for pulp feeding
VORON TECHN INST 04.10.76-SU-409925
(05.06.80) C12g-01/02
04.10.76 as 409925 (4pp89)
Intensified fermentation of pulp is achieved with each section of the unit featuring a spiral partition attached to the bottom. The pulp is handled by a vibratory mechanism and the feed tube of pulp as well as the manifold of each section are coaxial with the housing. The outer turn of the spiral partition has perforation extending over 3/4 of its length

ODFO = ★ D16 09324 D/06 ★SU-7
Wine colouring substances content control - based on set mus extraction followed by stems separation and pulp grinding
ODESS FOOD IND INST 13.01.78-SU-570741
(05.06.80) C12g-01/02
13.01.78 as 570741 (4pp89)
Enrichment of wine material with colouring substances, ta agent or other extractive substances for enhancing the organo properties is ensured by separating 50-52 dal/t of must fro grapes. The must is diverted to fermenter and then stem removed from the must-free grape pulp. The latter is crush obtain a polydispersal mass containing the ground skins particles sizes of 0.3-0.4 mm and also comprising whole seeds. must is expressed from the pulp by a press.

GSAM = ★ . D16 09325 D/06 ★SU-73
Red wine production unit - has inner tank tangential chambers connected to bottom of outside tank
GEOR SAMTREST WINE 04.01.79-SU-706167
(05.06.80) C12g-01/02
04.01.79 as 706167 (3pp89)
Intensified extraction of colourants, aromatic and tannin substa for the production of red wine is due to the unit having chamber tangentially to the top of inner tank. The chambers are connect the lower part of outside tank by pumps, and the inner tank longitudinal slots over two thirds of its height.



BATU = ★ D16 09326 D/06 ★SU-739
Prodn. of a nutritious, weakly alcoholic drink - from infusion of sugar and dog rose fruit fermented with culture of Medusamy Gisevii Lindau
BATUMI FOOD IND INS 21.09.78-SU-666264
(05.06.80) C12g-03/02
21.09.78 as 666264 (2pp314)
A weakly alcoholic drink having good nutrient and biological val and good storage stability is made by: making an infusion of adding 10% sugar syrup; boiling the mixt.; washing fruit of the d rose plant; steaming for 1-2 mins.; adding the fruit to the tea sugar soln.; and standing for 12-14 hrs.
The mixt.is then filtered while simultaneously mashing the fr A culture of fungus Medusamyces gisevii lindau is then added in amt. 2.5-3.0 vol.% and the mixt. is brewed. It is then filtered fined, and bottled.

MOSU ★ D16 09327 D/06 ★SU-739
Bacterial strain Pseudomonas aurantiaca - produces enzy glutaminase-asparaginase with high activity for use in medicine antitumoural agent
MOSCOW LOMONOSOV UNIV(UYMO =) 28.11.77-SU-547431
B04 (05.06.80) C12d-13/10 C12k-01/02
28.11.77 as 547431 (3pp314)
Bacterial strain Pseudomonas aurantiaca BKMB 548 produces medicinal antitumour enzyme glutaminase- asparaginase whic used as asparginase-resistant tumour growth suppressant.
The strain has a shorter growth cycle than prior art strains, Pseudomonas boreopolis 526, and produces higher glutaminase asparaginase activity.

NCAU = ★ D16 09328 D/06 ★SU-739
Bacterial strain Streptococcus lactis 162A - used in m fermentation starters for salt cheese making
N CAUCASUS BUTTER 02.01.78-SU-578910
(D13) (05.06.80) A23c-19/02 C12k-01/02
02.01.78 as 578910 (3pp314)
Bacterial strain Streptococcus lactis 162A is used in microbial m fermentation starters for making cheese which is matured in o 14-18% salt soln.

strain has good stability towards saline solns. and grows in contg. 7.2-7.4% NaCl.
occur as cocci, diplococci or short chains and have a dia. 1.2-cron. On an agar medium contg. hydrolysed milk, 2-day s are circular with a dia. 1.0-1.5 mm., smooth, whitish and niform edges. A 5% culture in skimmed milk produces a curd rs. at 30 deg.C. Growth takes place at 10-43 deg.C, optimum being at 30 deg.C. The acidity developed in 7 days at m temp. is 100-110 deg.T.

= ★ D16 09329 D/06 ★SU-739-098
rial strain Streptococcus paracitrovorus 199A - used in milk ntation lactic flora starters for cheese making including brine ation
CAUCASUS BUTTER 02.01.78-SU-578911
13) (05.06.80) A23c-19/02 C12k-01/02
78 as 578911 (3pp314)
rial strain Streptococcus paracitrovorus 199A is used to make e which is matured in brine with salt concn. over 14-18%. The has high stability to saline solns. and grows in media having Cl content of 6-7%.
s are single, double or in chains and have a size 0.7-0.9 micron. gar medium contg. hydrolysed milk, two-day surface colonies ircular with a dia. 1.0- 1.5 mm. and are whitish with uniform . Milk sown with a 5% culture coagulates within 24 hrs. The grows at 10-36 deg.C with optimum growth at 25 deg.C.

J= ★ D16 09330 D/06 ★SU-739-099
erial strain Streptococcus cremoris 912A - used in fermenting for cheese-making including maturation in aq. sodium chloride

CAUCASUS BUTTER 02.01.78-SU-578912
13) (05.06.80) A23c-19/02 C12k-01/02
78 as 578912 (3pp314)
erial strain Streptococcus cremoris 912A is used to make cheese n is matured in saline having a salt concn. of 14-18% and higher. e strain has high stability to saline solns. and grows in media ng an NaCl content of 6.0-6.5%.
ls are diplococci or 3-4 membered chains and cell dia. is 0.9-1.2 on. On an agar medium contg. hydrolysed milk, 2-day circular, ce colonies have a dia. 1.0- 1.5 mm. and are whitish and smooth uniform edges. Active acid formation occurs 7-8 hrs.after ng milk with a 5% ferment. The strain grows at 10-38 deg.C optimum growth at 28-30 deg.C.

U= ★ D16 09331 D/06 ★SU-739-100
erial strain streptococcus diacetilactis Ap1 - used in salt cheese ing and having high stability towards saline solns.
CAUCASUS BUTTER 02.01.78-SU-588996
D13) (05.06.80) A23c-19/02 C12k-01/02
.78 as 588996 (3pp314)
erial strain Streptococcus diacetilactis Ap1 is used for enting milk to make cheese which is matured in saline having a concn. of 14-18% and higher. The strain has high stability rd saline solns. and grows in media having an NaCl content of .0%.
lls occur as paired diplococci or in chains and have a size 0.8-1.0 ron. On an agar contg. hydrolysed milk surface colonies are ed of dia. 1.0-1.5 mm. and are round, smooth, convexed and ish with uniform edges. Growth occurs at 10-40 deg.C, optimum p. being 30 deg.C. Acid forming activity begins in 7-8 hrs.

U= ★ D16 09332 D/06 ★SU-739-101
terial strain streptococcus diacetilactis 500A - used in salt cheese ing and having high stability towards saline solns. used in ese maturation
CAUCASUS BUTTER 02.01.78-SU-588997
D13) (05.06.80) A23c-19/02 C12k-01/02
1.78 as 588997 (3pp314)
terial strain Streptococcus diacetilactis 500A is used to make ese which is matured in saline having a salt concn. of 14-18% and er. The strain has high stability towards saline solns. and grows edia contg. 7.0-7.2% NaCl.
ells are diplococci or small chains and their size is 1.0- 1.2 ron. On an agar medium contg. hydrolysed milk, surface nies of a two-day culture are round and have a dia. 1.0-2.0 mm.; are smooth and whitish and have uniform edges. When sown skimmed milk, a 5% culture results in coagulation in 6-8 hrs. wth occurs at 10-40deg.C with optimum growth at 30 deg.C.

IVAN= ★ D16 09333 D/06 ★SU-739-102
Differentiation of mobile enterococci from Streptococcus faecium - by different colouration of organic solvent added to culture medium contg. tri:phenyl tetrazolium chloride indicator
IVAN MEDICAL INST 31.10.78-SU-682052
B04 (05.06.80) C12k-01/04
31.10.78 as 682052 (2pp314)
Enterococci are identified by sowing sample collected from a ban on to a dense nutrient medium contg.C and N sources, mineral salts and 2,3,5-triphenyl-tetrazole chloride indicator, incubating and observing colony development.
To differentiate mobile enterococci from Streptococcus faeci the developed colonies are coated witb an org. solvent, pref. cbloroform or acetone, and the mobile enterococci are then identified by the presence of colouration in tbe solvent. Bul.21/5.6.80.

ABMI= ★ D16 09334 D/06 ★SU-739-103
Nutrient for culturing of ethanol assimilating microorganisms - comprises ethanol, phosphate salts, urea, iodo acetic acid, agar and water, useful in protein feed additive prodn.
AS BELO MICROBIOLOG 30.01.78-SU-574877
(05.06.80) C12k-01/06
30.01.78 as 574877 (4pp314)
Nutrient medium comprises (in wt.%): ethanol 0.7-1.5, KH_2PO_4 0.25-0.3, $Na_2HPO_4.12H_2O$ 0.5-0.6, $MgSO_4.7H_2O$ 0.1-0.13, urea 0.19-0.34, iodoacetic acid 0.1-0.8, agar 1.5-2.0 and water the balance.
The inclusion of iodoacetic acid as alcohol-dehydrogenase inhibitor enhances the rate of microbial culture selection and permits a more rapid breeding of the mutant forms which are growing. The culture is useful in microbiological synthesis of proteins for animal feeds.

BEPO ★ D16 09335 D/06 ★SU-739-104
Nutrient for developing microbial virulence determinants - contg. agar amino-acids, mono:saccharide, lactic acid, mineral salts, evans blue dye and ferrous sulphate grow factor
BELORUSSIAN POLY 03.06.78-SU-640373
(05.06.80) C12k-01/06
03.06.78 as 640373 (3pp314)
Nutrient medium for developing P+ virulence determinants comprises (in g./l.): agar 18.20-20.0, KH_2PO_4 4.0-4.2, NH_4Cl 0.4-0.7, $(NH_4)_2SO_4$ 0.4-0.7, galactose 1.8-2.5, beta-phenyl-alpha-alanine 0.10-0.18, methionine 0.005-0.10, cysteine 0.04-0.08, valine 0.04-0.08, isoleucine 0.05- 0.10, glycine 0.04-0.1, $MgSO_4$ 0.05-0.30, $ZnSO_4$ 0.0001-0.0005, $MnSO_4$ 0.0001-0.0005, lactic acid 0.5-2.0, Evans blue dye 0.01-0.10, $FeSO_4$ 0.3-1.0 and arginine 0.1-0.2.
The use of Evans blue dye and $FeSO_4$ as a growth agent simplifies the identification and preserves microbial growth rate.

MOMD ★ D16 09336 D/06 ★SU-739-105
Biological suspension clearing unit - has additional filter press with filtrate collector and inert gas supply
MOSCOW MEAT DAIRY INST 02.12.77-SU-549380
(05.06.80) B01d-31 C12k-01/10
02.12.77 as 549380 (3pp89)
Intensified concentration of suspensions is ensured in the plant comprising a collector of filtrate connected to the press-filter for the preliminary cleaning of the suspension. Both the filtrate collector and the pipe feeding the suspension to the filter are connected to the source of inert gas while the filter press features turbulising inserts.

MIME= ★ D16 09409 D/06 ★SU-739-381
Biological material mono:amine oxidase activity determn. - includes incubation with serotonin or tryptamine using semicarbazide, then di:nitrophenyl hydrazine and photometry
MINSK MED INST 25.11.77-SU-545990
B04 S03 (09.06.80) G01n-21/24
25.11.77 as 545990 (6pp938)
Enzymic activity of monoamine-oxidase in biological material can be estimated by the incubation of amine-contg. material in weakly basic medium with an excess of semicarbazide in the presence of monoamine oxidase followed by trichloroacetic acid soln. treatment. The resulting prod. is treated with excess 2,4-dinitrophenyl hydrazine and the optical density of the resulting coloured soln. is evaluated by a known method.
The sensitivity of tests is increased if serotonin or tryptamine (e.g. in a form of neutralised aq. salt soln.) is used as biogenic amine substrate for above enzyme. Bul.21/5.6.80

KURE D16 06341 A/04 =SU-740-156
Prodn. of polysaccharide with antitumour activity - by extracting a culture of Coriolus fungus
KUREHA CHEM IND KK 22.07.76-JP-087503
*B04 (05.06.80) *BE-856-805 C12d-13/04*
21.07.77 as 508258 (3pp)

Prodn. of a polysaccharide (I) with antitumour activity comprises first subjecting a fungus of the genous Coriolus (class Basidiomycetes) to submerse culture in an aq. medium. The culture is then dried at 60-160 deg.C. and extracted with an aq. solvent. The extract is then purified by separating substances with a mol. wt. of less than 5000.

(I) is an orally administrable anticancer agent. It also counteracts loss of immunity (e.g. caused by cancer chemotherapy), improves hepatic function, stimulates the appetite, relieves intestinal disorders and promotes urine excretion. It can also be used to treat leprosy. Bul.21/5.6.80.

DOCT= ★ D16 09430 D/06 ★SU-740-234

NADP dependent iso-citrate dehydrogenase fraction activity - estimated by incubation in polyacrylamide gel contg. phenazine or tetrazolium salts and photocolorimetric analysis

DOCTOR RETRAINING 30.05.78-SU-622982

A89 B04 J04 P31 (S03 S05) (18.06.80) A61b-10 G01n-33/16

30.05.78 as 622982 (3pp938)

Determn. of activity of adenine-nicotinamide dinucleotide phosphate dependant isocitrate dehydrogenase isoenzyme fraction includes electrophoretic sepn. of test-sample in polyacrylamide gel. The latter is incubated in a soln. contg. phenazine metasulphate and tetrazolium cpds. and the activity of separate isoenzyme fractions is estimated by measuring the optical density of gel from coloured regions of the gel mass. In order to accelerate the test procedure and to improve the accuracy of the results, the incubation medium is additionally treated with retinol or retinyl acetate soln. The concn. of the latter is 2-3 mg/ml. for optimal results. Bul.22/15.6.80

UAGR= ★ D16 09434 D/06 ★SU-740-249

Inactivation of Dendrodochium toxicum fungal toxin - by application of aq. soln. of specified surfactants, useful in animal feed detoxication etc.

UKR AGRIC ACAD 27.09.78-SU-668574

B04 C03 (18.06.80) A01n-09/02 A61k-31/14

27.09.78 as 668574 (4pp938)

Dendrodochium toxicum fungal strain is an etiologic a9ent of dendrochiotoxicosis in man and animals. Mycotoxications effect of dendrodochin (I) fungal toxin can be prevented by the application of aq. soln. of surface active agents ethone or dodecone. 10-30 mg/ml. toxin is inactivated with 0.1-1.0% soln. of above surfactants after 1-3 days. Toxin (I) is a metabolite of highly toxic Dendrochium toxicum Pidopl. et Bilai fungal strain.

The method can be used in the detoxication of animal feeds or in the treatment of dermatological disorders, e.g. ulcers, resulting after contact of skin with the above fungal toxin. Bul.22/15.6.80.

BECI ★ D16 09555 D/06 ★US 4246-084

Electrophoretic determn. of lactate dehydrogenase enzymes - using new buffers contg. barbital and glycine derivs.

BECKMAN INSTRUMENTS INC 29.05.79-US-042845

B04 J04 S03 (20.01.81) G01n-27/26 G01n-33/16

29.05.79 as 042845 (6pp367)

New buffers (I) with a pH of 7-9 at 25 deg. C comprise (a) an alkali metal or ammonium 5,5-diethylbarbiturate, (b) N,N-bis(2-hydroxyethyl)glycine (bicine), N-tris(hydroxymethyl) - methylglycine (tricine) or glycylglycine, and pref. (c) a solid water-soluble organic acid and (d) 2-amino-2-methyl-1,3-propanedial (AMPD) or 2-amino-2-hydroxymethyl-1,3-propanediol (Tris).

Electrophoretic determn. of the relative distribution of lactate dihydrogenase (LD) isoenzymes is carried out by (i) applying the sample to a buffered electrophoretic medium, (ii) placing the sample-contg. medium in an electrophoretic cell contg. an electrophoretic buffer, and sepg. the LD into its constituent isoenzymes, (iii) contacting with a soln. contg. a substrate buffer, an activator, a substrate and an indicator, and (iv) measuring the amt. and location of detectable reaction prod. The improvement comprises using (I) as the electrophoretic buffer and/or the substrate buffer and opt. to buffer and electrophoretic medium.

Determn. of LD isoenzymes can be used for diagnosis of diseases. (I) give higher relative percentages of LD5 isoenzyme than prior art buffers and thus improves the accuracy and reproducibility of the electrophoretic data.

UNIC ★ D16 09560 D/06 ★US 4246-099

Warm digestion of sludge - using anaerobic and aerobic conditions, used in sewage and waste water industries

UNION CARBIDE CORP 06.04.79-US-027801 (08.02.77-US-766770)

(20.01.81) C02c-01/14

06.04.79 as 027801 (+13.10.77,26.07.78-US-841902,928099) (22pp478)

Sludge (I) is digested as follows: (a) (I) and aeration feed gas (at least 20 vol.% O2) are mixed in a 1st digestion zone to maintain aerobic digestion, to keep total suspended solids content of (I) at least 20,000 mg/l and to keep temp. at 35-75 deg.C; (b) step (a) is contd. retention time 4-48 hr. to partially reduce the biodegradable v suspended solids (II) content of (I) and to form a partially sta (I); (c) the partially stabilised (I) is passed to a 2nd digestio where it is anaerobically digested at 25-60 deg.C until the (II) c of the sludge is reduced to below 40% of its original content ar gas is formed; and (d) the further stabilised (I) and CH discharged separately from the 2nd zone.

The elevated temp., integrated digestion of (I) using both a and anaerobic processes operates economically, gives a h degree of thermal operating stability, and produces a h stabilised sludge. In addn., anaerobic retention times are reduced; significantly more CH4 than is required to be used a for the process is produced; no carryover of O2 occurs from 1s to the gas phase of the 2nd zone; and the system can accom sporadic upsets without loss of efficiency.

RESE- ★ D16 09605 D/06 ★US 424

Amino-2-hydroxyalkyl-sulphonic acids - useful as hydroge buffers esp. for tissue culture

RESEARCH ORGANICS 27.08.79-US-069880 (08.12.77-US-85

E16 (20.01.81) A61k-31/18 C07c-143/02

27.08.79 as 069880 C.i.p. 4189950(+24.7.78-US-927125)(5pp478)

Amino-sulphonic acids (A)(B)N-(CH2)n-CH(OH)-CH2SO3H, are Where A and B are H or 1-4C hydroxy-aliphatic; n is 1 or 2. Pre or both of A and B are hydroxyethyl gps. This is a c.i.p and div of US4189950.

(I)are useful as H ion buffers in biological research, and parti tissue culture.

USDA ★ D16 09632 D/06 ★US 424

Controlling plant diseases caused by sclerotia of fungi - by addi soil a culture of the mycoparasite Sporidesmium sclerotivo NRRL 11437

US SEC OF AGRICULTURE 26.02.79-US-015540

C03 (20.01.81) A61k-35 A61k-37

26.02.79 as 015540 (5pp914)

Control of plant diseases caused by sclerotia of Sporidesmiu susceptible plant pathogenic fungi comprises initially producing mycoparasite Sporidesmium sclerotivorum by adding an inocu of S.sclerotivorum NRRL 11437 to an inert culture medium co living sclerotia of a fungus species susceptible to the Sporidesmi and culturing the mycoparasite at 15-25 deg.C until 100,000-500 macroconidia per g of inert culture medium are produced. inoculum is then added, at the rate of 2,000 -20,000 lbs. per acre soil having a pH of 5.0-8.0, a moisture level of 70% and a temp. o 30 deg.C, and is mixed with the soil to at least that depth at which sclerotia reside. The Sporidesmium is then allowed to develop in soil until it infects, consumes and destroys at least 90% of sclerotia.

MIFI ★ D16 09663 D/06 ★US 4246

Portable device for assaying body fluids - has co:react incorporated into membrane base of the sample well

MILLIPORE CORP 01.11.78-US-956702

B04 (20.01.81) C12m-01 C12q-01/66

01.11.78 as 956702 (5pp1251)

Assay device consists of an upper and lower portion which can closed or held open, the upper portion having 1 or more wells w open bottoms for the liq. samples. A microporous membrane w uniform pores 25nm to 25 microns in size is sealed, liq. tight, over bottom of the wells. The membrane comprises or contains the reactant (A) for the assay system.

The lower portion contains a solid sorbent, most of which can wetted by the sample, and the upper surface of the sorbent touc the bottom of the membrane when the device is closed, but not wh open. The wells thus retain liq. in the open position, but allow through when closed.

Esp. an antibody or antigen is immobilised on the membranes.

LKBP D16 71832 B/40 =US 4246-

Adenine tri:phosphate determn. by bio-luminescence - us luciferin, luciferase and competitive inhibitor to give stable li intensity

LKB PRODUKTER AB 31.05.78-SE-006296

*B02 J04 S03 (S05) (20.01.81) *BE-876-662 + C12q-01/66*

30.05.79 as 043835 (8pp965)

Novel determn. of ATP concs. comprises contacting the test sam with a bioluminescence reagent (I) based on D-luciferin, lucifer and metal ions.

The ATP and D-luciferin is bound to the luciferase and light emitted. The intensity of the emitted light, which is a measure of ATP concn, is measured. In the determn. at least 1 competit inhibitor of the reaction in the form of a D-luciferin analogue, pr L-luciferin, is used. The concn. of the analogue pref. gives inhibition of at least 25%, pref. 50-90%. Pref. a pyrophosphate highest concn. 0.0001 (0.00001) is used in the determn.

Higher sensitivity and better reproducibility of results are obtd.

E- ★ D16 09664 D/06 ★US 4246-341
ting and visualising xanthine oxidase enzyme - by ntinuous polyacrylamide gel electrophoresis, followed by ng gel with neo:tetrazolium chloride
NIV OF DELAWARE 23.02.79-US-014337 (15.06.77-US-806736)
9 B04 (20.01.81) C12q-01/26
79 as 014337 Div.ex 4172763 (5pp914)
matically active xanthine oxidase (XO) is detected and lised by firstly analysing a XO-contg. liq. by discontinuous crylamide gel electrophoresis, where pore sizes in the gels are on the use of 3.5% acrylamide in the sample and spacer gels 0% acrylamide in the separating gel. The gels are run in a basic 8.3 using Tris/Glycine buffer at 2.5-3.0 mA/tube. The gels XO are then immersed for 1-10 hrs. in neotetrazolium chloride xanthine soln. mixt. where the XO reacts with the substrate nine, transferring its electrons first to flavin adenine cleotide moiety of the enzyme and then to neotetrazolium ide, forming a purple coloured ppte. (formazan) at the site e the XO is located. The position of the enzyme in the gel is thus ed and visualised.
e method can be used e.g. to monitor the activity of the milk XO by the process of 4172763. Highly purified XO is needed in arch and in a variety of industrial, clinical and pharmaceutical ications.

N D16 73838 B/41 = US 4246-342
gent for assay of pyruvate - contains pyruvate oxidase and pref. ctors, phosphate and metal salt activator
OYO JOZO KK 14.07.78-JP-086350 (25.03.78-JP-034687)
*04 J04 S03 (S05) (20.01.81) *DE2911-481 C12n-09/08 C12q-01/26*
.79 as 022442 (17pp936)
In. of pyruvate oxidase comprises culturing a Pediococcus ptococcus or Aerococcus microorganism (I) in a nutrient culture ium. Pref. (I) is P. sp. B-0667, S. sp. B-0668, A. viridans IFO-12219 viridans IFO-12317.
od. is used specifically for analysis of pyruvic acid since it lyses the reaction of pyruvic acid, phosphate and O2 to form ylphosphate, CO2 and H2O2.

I- D16 43409 Y/25 = US 4246-343
trochemical detection of microorganisms - to test blood, etc. for eria, antibiotics for viability and foods for contamination
NIV OF VIRGINIA (USAS) 02.12.76-US-747033 (24.01.75-US-43860)
*04 J04 S03 (J03 S01 S05) (20.01.81) *BE-849-429 +C12q-01/18*
.79 as 035397 Div ex 4200493 C.i.p 4009078 (+16.12.75, 2.12.76-US-79, 747033) (18pp936)
roducing bacteria in a fluid sample is detected by culturing a roducing bacterium in a medium in contact with a measuring rode (+-) and reference electrode conductively attached to a impedance potentiometer having an input impedance of 10 er 7-10 ohms.
owing bacteria gradually concentrate about (I) and a charge-ge interaction is formed between (I) and accumulated oorganisms. Evolved H2 gives rise to a modifying electrode the nature of a H2 electrode.
stable baseline response is achieved from the potentiometer to reaching the min. detectable concn. of the bacterium. lly the change in potential between (I) and (II) is measured.

N D16 77017 C/43 = US 4246-344
rmn. of adherent cells with a piezoelectric oscillator - useful for nosis of tumours, microbial infection etc.
INNESOTA MINING CO 09.04.79-US-028349
*96 B04 (20.01.81) *WP8002-158 C12q-01/06*
.79 as 028349 (7pp964)
ct quantitative measurement of adherent cells in liq. sample prises (a) contacting the liq. sample with the surface of electric oscillator having a premeasured resonant frequency; ncubating the sample and the oscillator to allow the cells to act the surface; (c) washing and drying the oscillators; and (d) rmining the change in frequency of the oscillator from the measured frequency.
ef. the oscillator is applied with layer of positively charged 2-hydroxy-3-dimethylamino-1,4-butane) prior to step (a), or with tively charged gum arabic. The oscillator may have a layer of styrene applied prior to step (a).
ethod is useful in diagnosis of biological disorders of the human

B D16 13241 C/08 = US 4246-345
mino-6-desoxy-L-sorbose prodn. - by microbial conversion of 6-xy-D-glucitol
AYER AG 03.08.78-DE-834122
*03 E13 (20.01.81) *DE2834-122 C12p-19/26*
.79 as 056741 (7pp964)
mino-6-deoxy-L-sorbose (I) is produced by culturing aerobic oorganism capable of oxidising 1-amino-1-deoxy-D-glucitol (II) n enzymic extract obtd. from the microorganism under aerobic itions in aq. medium contg. (II) or salt and also contg. milable sources of carbon, nitrogen and essential trace elements.
Specific microorganisms are Gluconobacter oxidans Spp. suboxidants (DSM 50 049), Glucobacter oxidans ssp.suboxidans (DSM 2003), Cornynebacterium betae (DSM 20141) and Metschnikowia pulcherrima (ATCC 20515).
Reaction is complete within a few hours resulting in only extremely slight decomposition of (I).

FERM- D16 02075 A/02 #US 4246-346
Immobilised microorganisms activated with peptone and glucose - for repeated conversion of steroids and antibiotics
FERMENTA AB 06.07.76-SE-007698 (05.07.77-US-812996)
*A96 B04 (20.01.81) *BE-856-358 C12p-33/14*
05.09.78 as 939117 (4pp965)
In antibiotic and steroid transformations using an immobilised living microorganism as catalyst, the microorganism is activated in the reaction mixt. by addn. of a peptone glucose mixt. Pref. substrates are cortisol, the 6 alpha-, 9 alpha- difluoro deriv., the 6 alpha fluoro, 16 alpha-methyl deriv., the 9 alpha fluoro, 16 alpha-hydroxy deriv. and the 6 alpha, 9 alpha difluoro 16 alpha-, 17 alpha isopropylidenedioxy deriv. of cortisol. Pref. the cortisol (deriv.) is delta dehydrogenated to the corresp. prednisolone cpd. in the transformation. Pref. organism is Arthrobacter simplex and is entrapped in polyacrylamide.
Addn. of the peptone glucose mixt. prevents activity decline of immobilised living microorganisms its use may enhance the activity at repeated or continuous operation.

NOVO- ★ D16 09666 D/06 ★US 4246-348
2-Keto-L-galactonic acid prodn. by fermentation - of L-galactonic acid, useful as vitamin/C intermediate
NOVO LABS INC 23.10.78-US-953793
B04 (20.01.81) C12p-07/58
23.10.78 as 953793 (5pp1251)
Prodn. of 2-keto-L-galactonic acid (I) comprises cultivating a suitable microorganism in presence of L-galactonic acid (II), so that (I) accumulates in the culture medium. Specified microorganisms are Erwinia herbicola, Pseudomonas cepacia,P. fluorescens, Serratia marcescens and Citrobacter amalonaticus.
(II)is readily available from pectin (e.g. agricultural wastes such as beet or citrus pulp)but is difficult to convert to (I) chemically.

CORG ★ D16 09667 D/06 ★US 4246-349
Stabilising immobilised bacteria - by incubating with carrier in presence of sucrose or milk solids, then lyophilising
CORNING GLASS WORKS 05.09.78-US-939176
B04 (20.01.81) C12n-11/14
05.09.78 as 939176 (4pp1251)
Stabilisation of immobilised bacteria comprises first suspending the bacteria in an aq. medium of 1-20 wt.-vol.% sucrose or non-fat dry milk solids content, then incubating the mixt. with an inorganic carrier having available oxide or hydroxide gps. to adsorb the bacteria. The mixt., pref. after removing any excess liq. is then lyophilised. The bacteria used are those which are difficult to keep alive in vitro. Pref. the carrier is a cordierite material and the aq. medium contains 4-12% sucrose.
The stabilised bacteria are useful as laboratory control cultures, starters and to provide sources of bacteria for BOD determinations They can be stored for a long time, pref. at about 4 deg.C, without loss of viability even in containers which are not vacuum-sealed (so can be repeatedly sampled). The method is esp. useful for Streptococcus pyogenes, Neisseria gonorrhoeae, Haemophilus influenzae, Streptococcus pneumoniae, Clostridium perfringens and Bacteroides fragilis.

DOWC ★ D16 09668 D/06 ★US 4246-350
Immobilising proteins on di:vinylbenzene-styrene copolymer resins - with chelating gps., pretreated with polyvalent metal ions
DOW CHEMICAL CO 01.03.79-US-016587
A96 B04 (20.01.81) C12n-11/08
01.03.79 as 016587 (3pp1251)
Proteins are immobilised on a macroporous styrene-divinylbenzene copolymer resin of pore dia. 50-2000 angstroms contg. recurring bis-picolylamine, imino-diacetate or hydroxyethyl picolylamine chelating sites. The resin is first treated with transition metal or pref. rare-earth metal ions to form a metal chelate, then the protein immobilised on the metal-contg. resin. The prods. themselves are also new. The protein is pref. an enzyme, specifically glusose isomerase.
Proteins can be bonded to resins of high surface area to provide max. loadings. They are strongly held but can be simply recovered by washing (e.g. with salt soln.).

ASAH D16 33716 A/19 = US 4246-351
Porous co:polymeric protein adsorbent - prepd. from cyano-acrylic monomer and crosslinking agent, useful e.g. for immobilising enzymes
ASAHI KASEI KOGYO 10.05.77-JP-052585 (28.10.76-JP-128868)
*A97 B04 (20.01.81) *DE2746-275 C08j-09*
29.10.79 as 088927 (+12.10.77, 15.9.78-US-841271, 942716) (16pp974)
Proteins are adsorbed from their aq. solns. or dispersions by contacting with a porous copolymer at 0.02-300 g/l. The copolymer is

of 2-98wt.% monomer(s) of formula CH2:CR.CN and 2-98wt.% cross-linkable monomers contg. CH2:C= gps. It has an ave. pore dia. of 40-9000 angstroms and a total pore vol. of 0.05-1.5 root x ml. per g dry copolymer, where X is the percentage of the latter monomer(s).

R is H, 1-10C alkyl, halogen, CN, CH3O, acetoxyl or C6H4R'. R' is H, 1-10C alkyl, halogen, CN, CH3O or acetoxyl.

Process is used e.g. in the purificn. of aq. liqs.

BUDD/ ★ D16 09669 D/06 ★US 4246-352

Apparatus for measuring biological activity of cells - with internal container housing absorber and scintillation compound

BUDDEMEYER E U 18.12.78-US-970801

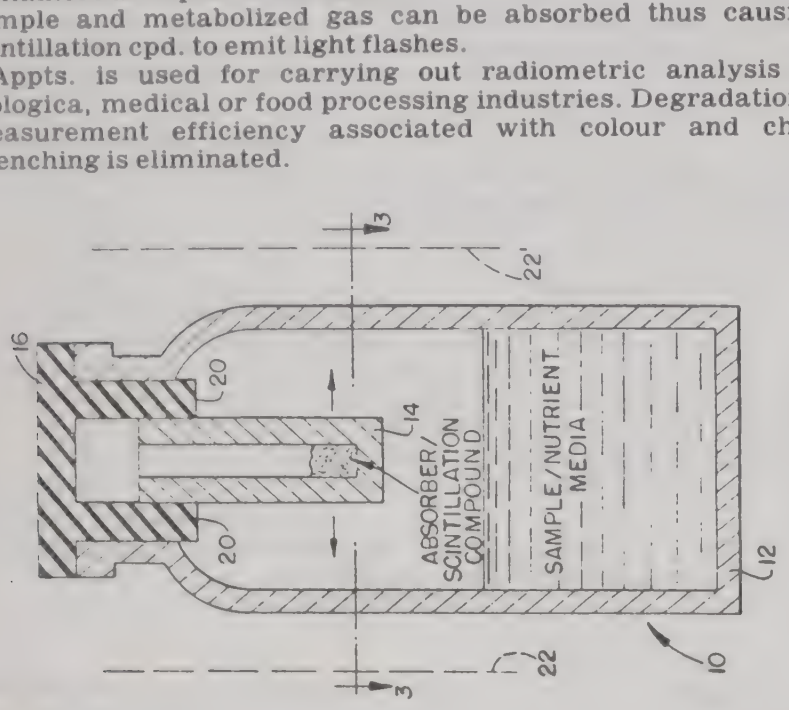
K08 S03 (20.01.81) C12m-01/34

18.12.78 as 970801 (8pp295)

Appts. for use in radiometric analysis of the biological activity of a sample comprises a first container holding the test sample and a radionuclide-labelled nutrient media which can be metabolised to produce a gas which includes the radionuclide. A second container is enclosed within the first. This contains a scintillation cpd. and an absorbent material.

The second container is supported in the first above the test sample. The first container is sealed while the interiors of the two containers are open to one another so that the gas evolves by the test sample and metabolized gas can be absorbed thus causing the scintillation cpd. to emit light flashes.

Appts. is used for carrying out radiometric analysis in the biologica, medical or food processing industries. Degradation of the measurement efficiency associated with colour and chemical quenching is eliminated.



BRIM D16 05741 D/05 = US 4246-400

Antimicrobial and antitumour tallysomycin derivs. - prepd. by fermenting streptoalloteichus hindustanus in presence of amine

BRISTOL MYERS CO 13.07.79-US-057528

*B03 C02 (20.01.81) *BE-884-291 A61k-31/71 + C07h-15/22*

13.07.79 as 057528 (8pp945)

Tallysomycin A derivs. and tallysomycin B derivs. and their acid addn. salts are new. The derivs. are produced by effecting the fermentation procedure of US 4051237 in the presence of certain precursor amine cpds. and have valuable antimicrobial and antitumour properties.

The tallysomycin A derivs. have the NH(CH2)3NH(CH2)4NH2 chain of the parent cpd. replaced by an NH(CH2)3NH2, NH(CH2)3S(+)(CH3)2, NH(CH2)3NHCH2CH2OH, NH(CH2)3N(CH2CH2OH)2, NH(CH2)4NH2; NH(CH2)3NHCH3 or NH(CH2)3NHCH(CH3)Ph gp.

The tallysomycin B derivs. have the NH(CH2)3NH(CH2)4NH2 chain replaced by one of these gps. or NH(CH2)2NH2, NHCH2CHOHCH2NH2, NH(CH2)2NH(CH2)2NHCH2CHOHCH3, NH(CH2)3N(CH3)2, NH(CH2)2NHCH2CH2OH, N-(3-aminopropylmorpholine or N-(3-ampropyl)-2-pipecoline.

ALPH- ★ D16 09713 D/06 ★WP 8100-050

Prodn. of hepatitis B vaccine - by purificn. of surface antigen from serum or plasma

ALPHA THERAPEUTIC(MAUP/) 05.07.79-JP-085493

A96 B04 (22.01.81) A61k-39/12

03.07.80 as U00834 (11pp367) (E) US3415804 US3630840 US3838144 US3951937 US3989818 US3994870 US4087519 US4118478 US4118479 US4206014 3.Jnl.Ref N(DE GB US)

Prodn. of a hepatitis B vaccine from an aq. suspension of crude hepatitis B surface antigen (HBsAg) derived from human serum or plasma comprises (a) adjusting the pH of the suspension to ca. 7 and removing plasma proteins, (b) adding polyethylene glycol (PEG) to a concn. of 5-6% and removing Dane (virus) particles and immune complexes as ppte., (c) adding more PEG and collecting HBsAg particles as ppte., (d) subjecting the ppte. to gel filtration and ultracentrifugation to recover a fraction of HBsAg particles with a particle size of 22 nm and a specific gravity of 1.19-1.21 g/cc, (e) inactivating any virus in the fraction, and (f) making the fraction into a vaccine.

The process is suitable for commercial operation and yie vaccine which is effective in preventing hepatitis B infection wi any adverse side-effects.

MINN D16 07734 D/05 = WP 81

Translucent microbial profile tray - having wells with diffusin clear bases paired to eliminate effect of diffusion

MINNESOTA MINING CO 29.06.79-US-053437

*(22.01.81) *US4245-052 C12m-01/20 + B01l-03*

14.05.80 as U00609 (10pp1358) (E) AT-170898 US4154795 US37 US3356462 US3107204 US4099881 N(JP) E(DE FR GB SE)

A microbial profile tray is of translucent material which uniformly cup-shaped wells having openings flush with a surface; some having a smooth surface base so that light i affected, while others have a light diffusing base surface fini that the diffusion simulates that which is caused by micr growth turbidity, these being used as control wells.

BROD/ D16 06110 D/05 = WP 81

Catalyst for prodn. or transformation of natural prods. - comp bio:catalysts of higher plant cell origin immobilised in polymer

BRODELIUS P 27.06.79-SE-005615

*A97 B04 (22.01.81) *EP--22-434 C12n-11 C12p-01 + C12n-05*

27.06.80 as SE0182 (22pp914) (E) US4078971 US4024020 DE222433 118484 4.Jnl.Ref N(DK HU JP SU US)

Catalyst for prodn. or transformation of natural prods. origin from higher plants comprises particles of a pref. porous polym the pores or network of which are entrapped and/or absorbed a covalently bound biocatalysts, or particles of crossl biocatalysts, the biocatalysts being whole cells, protop protoplasts with regenerated cell walls, hybrid cells or complexes isolated from higher plants or from cell cultures of h plants, pref. callus or suspension cultures.

Pref. the polymer is a polysaccharide (esp. alginat carragheenan), an acrylic polymer or a crosslinked polyamine (a protein such as albumin, collagen or gelatin)..

The catalyst is used in continuous or discontinuous processe the prodn. of natural prods. by de novo synthesis or by pa synthesis from precursors, or for transformation of natural p Examples include (a) hydroxylation of digitoxin to digoxin u immobilised cells of Digitalis lanata; (b) synthesis anthraquinones using immobilised cells of Morinda citrifolia u hormone-limiting conditions; and (c) synthesis of ajmali serpentine, vincristine and vinblastine using immobilised cel Catharanthus roseus. The catalyst can also be used in cloning w i.e. developing cell lines having special props.

GENE- D16 03727 D/04 = WP 810

Cloning vector contg. semi-synthetic gene - for expressi polypeptide, esp. human growth hormone

GENENTECH INC 05.07.79-US-055126

*B04 (22.01.81) *BE-884-012 C12n-01 C12n-15 C12p-21*

03.07.80 as U00838 (35pp1251) (E) US4237224 US4190495 11Jn N(BR DK NO RO SU)

A cloning vector (A) which is able to express a specific polype (I) of known aminoacid sequence when a gene coding for incorporated under control of a promoter, is made by obtain first fragment (II) of a gene coding for a sequence other than inverse transcription of messenger RNA. (II) contains a substa portion of the sequence for coding (I) and if it includes codon aminoacid sequences other than those required in (I) these removed.

One or more fragments coding for the rest of the (I) sequenc synthesised, at least one including the N-terminal code, and are introduced together with (II) into an appropriate reading-f cloning vector, esp. a bacterial plasmid.

Bacterial plasmids able to express human growth hormone (H without prodn. of a conjugated foreign protein, and transfo bacteria contg. such plasmids are also new..

HGH is useful for treating hypopituitary dwarfism, diffuse g bleeding, pseudoarthritis, burns, cicatrisation, dystrophy consolidation of bones. It can now be prepd. on a larger scale only source currently is the hypophysis from human corpses.

MINN D16 07729 D/05 = WP 81

Multi-well tray for microorganism identification - biochemical test media and adjacent negative controls contg. c inhibitor

MINNESOTA MINING CO 29.06.79-US-053436

*(22.01.81) *US4245-043 C12m-01/16 C12q-01*

16.06.80 as U00761 (29pp1251) (E) US3826717 US4030980 US41 US3785928 US3441383 US4077845 US3356462 US3107204 US3 US4010078 US3713985 N(JP) E(AT CH DE FR GB LU NL SE)

Device for identifying microorganisms consists of a tray numerous wells some contg. media for growing microorga with prodn. of a volatile colour-former (I). Close to these wel negative control media including an inhibitor which, in aq.

s colour development from (I). The growth and negative media have the same colour, when hydrated, before tion.

pref. inhibitor is a buffer. Some of the wells are pref. ic test wells contg. predetermined concns. of antibiotic and biotic-free control..

nhibitor prevents false positives caused by contamination of ntrol medium with (I). The devices are usedto identify rganisms and to determine their antibiotic sensitivities.

★ D16 09734 D/06 ★WP 8100-116
ron prodn. and analysis - controlled by computer
RESEARCH CORP. 05.07.79-US-055053
S03 (S05) (22.01.81) A61k-39 C07g-13 C12q-01/54 G01n-21/64 n-31
0 as U00842 (13pp367) (E) US3256152 US3629235 US4061538 0035 US3385757 US4184917 N(AU JP SU) E(CH DE FR GB SE)

Interferon prodn. is carried out by (a) introducing a leucocyte-contg. sample into a leukochronometer to count the cells, (b) sonicating the sample, (c) inoculating with interferon inducers and adding casein, (d) incubating for 16 hr. and centrifuging, (e) acidifying with HCl and centrifuging, (f) treating the supernatant with trichloroacetic acid, (g) dissolving the ppte. in aq. NaHCO3 and adding Triton X and acetic acid, (h), freezing, thawing and centrifuging, (i) treating with trichloroacetic acid, (j) dissolving the ppte. in aq. NaHCO3 and adding urea, and (k) purifying the product by chromatography.

These operations are controlled by a computer in association with liq. and gas chromatographs and NMR and ESR spectrometers.

See Also

D13 J81000440 D13 SU 738586 D13 US 4246292
D15 EP--23040 D17 J81001074 D17 US 4246347
D21 US 4246256 D22 BE 884301

D17: SUGAR; STARCH

D17 60737 X/32 = J8 1001-074
se isomerase prodn - in culture medium contg. defined xylan ylose and or xylulose
ENCY OF IND SCI TECH 07.05.71-JP-030287 (00.00.75-JP-635)
*16) (10.01.81) *J51073-184 + C12n-09/92*
71 as 137635 /75 Div.ex.30287/71 (4pp)
cose isomerase-producing microorganism having ability to npose and assimilate xylan into xylobiose is used in a culture um contg. xylan, and at least one of xylose and xylulose.
an implies a substance contg. xylose as a basic constituent unit wheat bran, corn core in addn. of pure xylan and xylulose is by isomerising xylose with an alkali or an enzyme. It produces ient effect in such small amt. as 0.01%.
object substance is produced in good yield by utilising iose obtd. by decompsn. of xylan as an inducer with xylose or ose also as inducer, i.e. double induction mechanism is best. '3184)

M D17 47988 W/29 = J8 1001-080
ving, e.g decolourising sugar-contg. liquids - by contact with exchange resins derived from crosslinked vinylbenzyl ide
OHM & HAAS CO 27.12.73-US-428969
*7 (A13 A91) (10.01.81) *DE2460-322 C13d-03/14*
74 as 139429 (9pp)
-contg. liquid is purified, i.e. deionised and decolourised by ct with an anion exchanger resin (I) derived from a crosslinked benzyl chloride. Quaternary, or strongly basic, as well as ly basic resins may be used in deionising, and may have gel- r macroporous structure. Method is used in cane sugar mfr.
vantages include (i) refined sugar quality is improved; (ii) conc. soln. quantity decolourised in a given time can be increased; process avoids use of large quantities of adsorbent; (iv) tourising capacity of (I) is 25% better than that of chloromethyl styrene resins; (v) (I) are stable to heat; (vi) (I) are more easily erated than chloromethyl ether resins.(J50095438)

U/ ★ D17 09337 D/06 ★SU-739-106
r production carbonation juice settler - has collector of large rities in bottom of upper preparatory section
DKUTNEV L S 09.01.78-SU-595791
5.06.80) B01d-21/04 C13d-03
78 as 595791 (4pp89)
ention of ingress of large particles from suspension entering for ing the carbonation juice of sugar production and uniform ibution of flocculant are ensured by the collector of precipitate. ocated in the lower part of the upper preparatory section of the ng vessel and surrounds the hollow shaft. The separating disc ounted above the collector and beneath the discharge ports of haft while inside the latter is the flocculant nozzle set in the inlet zone.

SUGA = ★ D17 09338 D/06 ★SU-739-107
Diffuser condensate sulphitation unit - has heat exchanger with pipes holes spreading fluid film above distributor grid
SUGAR IND RES INST 24.01.78-SU-573032
(05.06.80) C02d-01/04 C13d-03/06
24.01.78 as 573032 (5pp89)
Removal of ammonia from the fluid in the unit for sulphitation of condensate of secondary vapours feeding diffusers in sugar production and improved efficiency of mass exchange are due to the heat exchanger. It is fitted in the upper part of the housing and comprises tubes with inserts for fluid spread as a film. The discharge holes of the tubes are located above the distributing grid and the heat exchanger includes a connector for feeding the ammonia desorber and an overflow pipe for exhausting the agent towards the top distributing grid.

CETU- ★ D17 09665 D/06 ★US 4246-347
Fructose prodn. from glucose - by enzymatic oxidn. to glucosone, then chemical hydrogenation
CETUS CORP 24.10.79-US-088103 (29.05.79-US-042219)
E16 (D16) (20.01.81) C12p-19/02
24.10.79 as 088103 (+ 29.5.79-US-042219) (9pp1251)
Prodn. of D-fructose (I) comprises first converting at least 96% of the D-glucose (II) in an aq. soln. to D-glucosone (III) by enzymatic oxidn., while removing or using hydrogen peroxide formed simultaneously. Then (III) is hydrogenated to (I), esp. over a supported palladium catalyst. (I) can be recovered crystalline by evapn. or pptn., or (III) is recovered as a syrup and hydrogenated in an organic solvent to give crystalline (I) directly.

Pref. the enzyme used is glucose-2-oxidase from Aspergillus oryzae or carbohydrate oxidase from Polyporus obtusus, and it is pref. immobilised. The process may be carried out in a column reactor.

(I) is used in dietetic confections and ice cream and as a replacement for other sweeteners in beverages.

BOEF D17 00106 C/01 = US 4246-431
Xylitol recovery from residual syrups - by chromatographic sepn. and hydrolysis and hydrogenation of polysaccharide fraction
SUDDEUTS ZUCKER-AG 14.06.78-DE-826120
*E17 (20.01.81) *DE2826-120 C07c-31/26*
12.06.79 as 047719 (3pp931)
Xylitol is recovered from end syrups of xylitol crystallisations by subjectingit to chromotographic sepn. using a weakly crosslinked , strongly acidic cation exchanger in the calcium salt form, and producing a first, a mixed- and a subsequent fraction.

The first fraction contg. polysaccharides and polysaccharide alcohols is subjected to acid hydrolysis, the acid is then removed, and the prod. crystallised from a hydrogenated fraction. Water is at least partially evaporated from the subsequent fraction and the prod. obtd. by cooling crystallisation or pptn. crystallisation.

The mixed fraction contg. xylitol and other sugar alcohols are polysaccharides is subjected to further chromotrographic sepn. sepn.

See Also

D16 J8 1001071 D25 DS 3020269

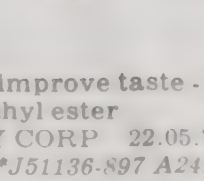
D18: SKINS; HIDES; LEATHER; TOBACCO

TATL D18 63444 A/36 = DS 2817-092
Smoking products based on tobacco contg. taumatin or monellin - esp. in cigarette filters, also buccal compsns. contg. the cpds.
TATE & LYLE LTD 30.01.78-GB-003719
*P15 (D13 D21) (29.01.81) *BE-866-418 A23g-03/30 A23l-01/23 A24b-15/30 A61k-07/16 + A24d-03/14*
19.04.78 as 817092 (3pp68)
Modified smoke, e.g. of cigarettes, cigars or for pipes. contains a sweet protein thaumatin, in an amt. of protein to tobacco of 1:7500 to 1:940, or monellin, in an amt. of 1:3000 to 1:375. The protein is in a position where it is contacted by smoke on the way to the mouth, pref. in a filter tip or filter cartridge. An adhesive agent such as peppermint oil or menthol may be used in equal amt. with the protein.
Thaumatin may be obtd. from Thaumatococcus daniellii and has a taste of liquorice. Monellin may be obtd. from Dioscoreophyllum cumminsii.(DS)

PHIM D18 10332 B/06 = EP G000-625
Granular filter comprising supported alkali or alkaline earth ferrate - esp. useful as tobacco smoke filter
PHILIP MORRIS INC 01.08.77-US-820502
*A88 E31 P15 (28.01.81) *EP-----625 C08l-23/06 + A24d-03/16 B01j-19/04*
30.06.78 as 300110 (6pp974) (E) No-Citns. E(CH DE GB NL)
Novel tobacco-smoke filter elements comprise an inert gas-permeable granular support material with an alkali or alkaline earth metal ferrate present on it at 15-50 wt.% (w.r.t. total). The Fe is at an oxidation state of +4, +5 or, pref. +6.
Pref. the support is impregnated with K ferrate (VI) in admixture with KOH and the KOH is then converted to carbonate. Pref. the support is a zeolite molecular sieve or microporous polyethylene powder.

UGIT ★ D18 08282 D/06 ★GB 1583-912
Appts. for dressing leather diaphragms - with mesh belts trapping and carrying diaphragms through dressing liq.
UNITED GAS INDS LTD 19.02.77-GB-007088
A88 (04.02.81) C14c-09/02
24.11.77 as ------ (3pp925)
A machine for dressing leather diaphragms comprises a bath holding a dressing liq. of mixed grease and oil. Travelling webs adapted to form two closely-spaced plies sandwich the diaphragms and carry them through the bath. The webs are formed of a material allowing access of the dressing liq. to the diaphragms. The webs are directed over a series of single rollers to make several passes through the bath below the liq. level. The webs then pass through several cleaning stations where excess dressing is removed from the webs.
The dressing renders the diaphragms air- or gas-tight for use in gas meters.

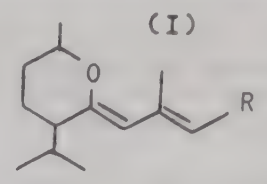
JAPM D18 95140 X/51 = J8 1001-066
Perfume compsn. used to improve tobacco flavour - contains a terpenoid acid or its ester as effective cpd.
JAPAN MONOPOLY CORP 25.04.75-JP-049750
*E17 + P15 (10.01.81) *J51125-764 + A24b-03/12 C07c-57/03 C07c-69/58*
25.04.75 as 049750 (6pp)
A perfume compsn. that is useful for improving the flavour of tobacco, contains terpenoid cpds. of formula (I) as effective component, (where R is -COOH, -COOCH3, -COOC2H5, -CH2COOH, -CH2COOCH3, -CH2COOC2H5). The amt. of the perfume component added is 0.01-1.0 pref. 0.05-0.5 wt.% of the tobacco compsn. The flavour of the tobacco i.e. leaf tobacco, tobacco renewed from waste tobacco, tobacco obtd. by tissue culture, artificial tobacco produced from cellulose, pipe tobacco and cigar tobacco is greatly improved. (J51125764)



(I)

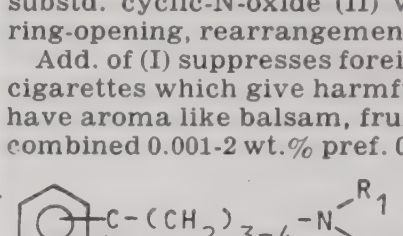
JAPM D18 02973 Y/02 = J8 1001-067
Perfume for tobacco to improve taste - is 9 oxo 6 isopropyl 3 methyl 4 dienoic acid or the (m)ethyl ester
JAPAN MONOPOLY CORP 22.05.75-JP-060210
*E17 P15 (10.01.81) *J51136-897 A24b-03/12 + C07c-59/76 C07c-69/73*
22.05.75 as 060210 4pp)

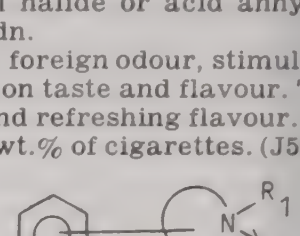
Novel perfume compsn. for improving smoking aroma of
Perfume is of formula (I): (where R is -COOH, -COOC
COOC2H5).
(I) is incorporated into tobacco in an amt. of 0.01-1 wt.% (I
incorporated into tobacco or into cigarette paper. (J5113687



(I)

JAPM D18 46202 Y/26 = J
Improving taste and flavour of cigarettes - by combining deriv. with cigarette material
JAPAN MONOPOLY CORP 11.11.75-JP-134721
*E13 P15 (10.01.81) *J52061-297 A24b-03/12 + C07d-213 C07d-405/12*
11.11.75 as 134721 (7pp5)
The method comprises combining the pyridine deriv. of fo
with the cigarette material.
In the formula R1 is H or lower alkyl, R2 is (un)sa
carboxylic acid, 1-10C oxyacid, furane carboxylic acid, a
carboxylic acid, hydrogenated aromatic carboxylic
terpenoid carboxylic acid. (I) are prepd. by reacting
substd. cyclic-N-oxide (II) with acyl halide or acid anhyd
ring-opening, rearrangement and addn.
Add. of (I) suppresses foreign taste, foreign odour, stimulu
cigarettes which give harmful effect on taste and flavour. T
have aroma like balsam, fruit, etc. and refreshing flavour. T
combined 0.001-2 wt.% pref. 0.005-0.5 wt.% of cigarettes. (J52



(I)


YAKU = ★ D18 D/06 ★SE
Leather treatment to retain hair covering - for prodn. of shoe
YAKUT LEATHER-SHOE 01.06.79-SE-004859
(19.01.81) C14b-01/14
01.06.79 004859 (-pp903)
Natural leather with a hair covering is produced by
pretreatment of rawhide in known manner; (b) cutti
thickness of 2-2.5 mm; (c) treating the prod. with a
soln. contg. surfactants, and enzymes; (d) pickling,
tanning, smoothing, greasing, drying, rolling, stre
and grinding.
All these operations are carried out while maintain
the hair covering. The reverse of the leather is tre
so as to give the hair the appearance of velvet. Th
prods. are useful in shoe prodn.

FARB D18 91194 B/51 = US
Condensation product for tanning leather - prepd. from t sulphonic acid, naphthalene sulphonic acid bis:hydrox sulphone and formaldehyde
BAYER AG 03.08.78-DE-834121
*A97 (A26) (20.01.81) *DS2834-121 C08g-16/02 + C08g-14/ 05/02*
25.07.79 as 060515 (3pp393)
Condensen. prods. obtd. by co-condensn., in aq. acid medi terphenyl sulphonic acids, (2) naphthalene sulphonic acids, hydroxyphenyl) sulphone and (4) HCHO or HCHO-releasing novel. Pref. the molar ratio of (1):(2):(3):(4) is 1:0.2-2.0:0.3-3. respectively. Co-condensn. is pref. at 75-130 deg.C.
The prods. are suitable as tanning agents for the prodn. leather, which is fast to light, and also as retanning a mineral-tanned leather, esp. for brighteneing and plumpin leathers.

DAIL D18 20245 B/11 = U
Filter for tobacco smoke - contg. fibrous material and p synthetic mica for effective adsorption of nicotine, tar, acet and solid particles
DAICEL CHEM INDS LTD (GOSE) 19.07.77-JP-085569
*E33 P15 (20.01.81) *DE2830-049 + B01d-53 02*
17.07.78 as 925294 (4pp931)
Injurious components are removed from smoke by p through a filter material comprising a fibre matrix and swellable synthetic mica.

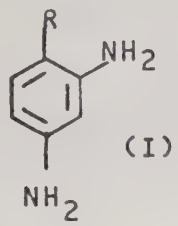
mica has formula
/3-1(X.Y)2.5-3(Si4O10)F2,
re W is the interlayer cation Na- or Li-, and X and Y are 6-inate ions. The smoke is removed by substitution of the ayer ions. Pref. the matrix comprises cellulose acetate or erated cellulose, and the micas are e.g. Na-tetra-silicic mica, Li-taeniolite, Na- or Li-hectorite, having size 4-100 mesh.

Poisonous gases e.g. acetaldehyde are selectively removed by the prod., and the filtration efficiency is improved w.r.t. the nicotine, tar and total particulate matter.

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

A ★ D21 07809 D/06 ★BE -884-417
dyeing compsn. contg. 4-propyl or butyl M phenylene-di-ne(s) - as couplers which are non-mutagen active by ames test
'OREAL SA 24.07.79-FR-019039
96 E24 (22.01.81) A61k C09b
.80 as 884417 (21pp597)
compsn. contains in a cosmetic support at least one oxidn. base at least one m-phenylenediamine coupler of formula (I) in which propyl or n-butyl or salts thereof.
ne amt. of (B) used is pref. 0.005-2.5%. Pref. oxidn. bases are ified p-phenylenediamines and p-aminophenols and 2,5-nino-pyridene.
nlike (I) in which R is methyl or ethyl, (I) where R is propyl or l does not show mutagen activity by the Ames test. They give le shades equivalent to those obtained with 2,4-diamino- toluene.



(I)

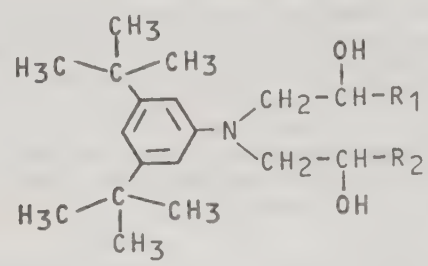
YE- ★ D21 07889 D/06 ★DE 2928-040
netic water-in-oil emulsion prepn. - by forming a lecithin and ral oil soln., cooling, diluting with water, and opt. adding rogel former e.g. PVP
HEM FAB MEYER-CAST 11.07.79-DE-928040
96 (29.01.81) A61k-07 B01f-17/36
.79 as 928040 (19pp200)
lsions having a high water content are produced by first paring an initial soln. of neutral oil with 5-50 % lecithin as lsifier at up to 70 deg.C. The initial soln. is cooled to 0-12 (4-8) C. The soln. obtd. is diluted with water to water content 50-83 (70-. Water addn. opt. takes place entirely before cooling. Cooling be replaced by storage, esp. for 1-7 days. The emulsions can be ixed with standard additives, including hydrogel-formers, e.g. , cellulose derivs. and Na alginate or silicates, e.g. aerosil or onite, or opt. vaseline, paraffin, bees' wax, purcellin oil, cado oil and perfumes.
ne use of the emulsions as cold creams is claimed.

YE- ★ D21 07890 D/06 ★DE 2928-041
n-water emulsion prepn. - from compsns. prepd. by adding fat to ecithin gel or water to lecithin and fat mixt.
HEM FAB MEYER-CAST 11.07.79-DE-928041
307 (29.01.81) A61k-07 A61k-09/66 B01f-17/36
.79 as 928041 (13pp200)
psns. which easily emulsify to oil-in-water emulsions are prepd. ither (a) mixing pure lecithin with water in ratio 1:0.5 to 1:3, and ng, drop by drop, oil or fat having a low OH-index, and stirring mixt., or by (b) mixing pure lecithin with oil or fat having a low index, in ratio 5:95 to 50:50, in the presence of alcohol, and then ng water to form the emulsion.
mpsn. use as (i)washable water-in-oil creams, e.g. for skin ms, (ii) vehicles for hard and soft gelatin capsules and (iii) lsifying suppository material is claimed. Non- toxic lecithin can sed as the only emulsifier. Component no. can be reduced to 3 or

MERE ★ D21 07908 D/06 ★DE 2928-287
Light-stabilised pearl lustre pigment - contg. aluminium colour lake pptd. with addn. of hydroxyl or carboxyl gp-contg. cpd. pref. PVA
MERCK PATENT GMBH 13.07.79-DE-928287
A60 E17 G01 (E33) (29.01.81) A61k-07 C09c-03/08
13.07.79 as 928287 (23pp200)
Pearl lustre pigments consist of metal oxide-coated mica flakes contg. Al colour lakes, as colouring materials, fixed as water-insoluble cpds to pigment particle surface by means of a pptd. Al hydroxide layer. Novelty consists in admixing the colour lake-forming Al hydroxide layer with 1-50 wt.% OH- or COOH-contg. cpd. having formula Y-CHX-Z (I) (where X is OH or COOH; Y is H, 10-20C alkyl or alkenyl; Z is H, 10-20C alkyl or alkenyl, or-CHX-Z or -CH2-CHX-Z) having mol. wt at least 150 and solubility in water at least 0.05 g/l at pH 5-9 and precipitating the Al hydroxide layer together with (I).
Pigments are used in cosmetics, e.g. powders, eye shades, lipsticks, is claimed. The pigments can also be used as additivies for plastics, paints or varnishes. (I)-addn. improves pigment light-stability and prevents premature bleaching.

FARB D21 12909 U/10 = DS 2140-404
Dental lacquers - contg isocyanate telomers or graft copolymers
BAYER AG 12.08.71-DE-140404
*A96 G02 (29.01.81) *DE2140-404 + A61k-06*
12.08.71 as 140404 (7pp260)
Dental lacquers are produced by copolymerising in a solvent 10-99 wt.% (ar)aliphatic polyisocyanates and (a) 10-70 wt.% methyl methacrylate and (b) 0.3-10 wt.% olefinically unsatd. cpds. with NCO or gps. reactive to NCO or possibly reactive to the curing agent used. The resultant polymers are dissolved in a solvent. Up to 25 wt.% of other olefinically unsatd. cpds. can be used together with (a) + (b).
Single component lacquers are obtd., which are physiologically acceptable and cure readily without UV radiation. The lacquers surprisingly have good properties. (DS)

ESPE D21 47337 Y/27 = DS 2658-538
Activator for redox polymerisation, esp. of dental fillter compsn. - is bis-hydroxy-alkyl-butyl-aniline, giving stable colour
ESPE FAB PHARM PRAPARATE 24.12.75-CH-016787
*A60 E14 + P32 (A14 A96) (29.01.81) *DE2658-538 A61k-06/08 C08f-02 C08f-04/40 C08f-20/26 C08f-120/14*
23.12.76 as 658538 (5pp481)
N,N-Bis-hydroxyalkyl-3,5-di-t-butyl aniline of formula (I), in which R1 and R2 are H or 1-4C alkyl, are useful as activators of the redox polymerisation of ethylenically-unsatd. cpds.
Discolouration of the polymer is eliminated even after long periods.(DS)



(I)

YAMA- D21 87939 B/49 = DS 2920-163
Permanent wave preparation for warm setting - contg. thioglycolic acid, unbound ammonia, and a carbonate
YAMAHATSU SANGYO KK 19.05.78-JP-060501
*E17 (E37) (29.01.81) *DE2920-163 A61k-07/11*
18.05.79 as 920163 (20pp68)
Permanent wave prepn. has a pH of 7.4-8.0 at 25 deg.C and contains besides usual additives, per 100 ml. of the prepn. 0.03-0.06 (0.04-0.055)

moles thioglycollic acid, 0.06-0.12 moles in total of ammonia, 0.01-0.06 (0.02-0.05) moles of unbound ammonia and 0.01-0.06 (0.02-0.05) - based on CO2 - of a carbonate which releases CO2 on heating to 40-60 deg.C.

Hair may be waved by applying the prepn. before during or after winding the hair on curlers and leaving on the hair for 10-20 minutes in a moisture satd. atmos. at 40-60 deg.C. The prepn. does not harm hair or make it frizzy.(DS)

PROC D21 10320 B/06 =EP G000-604
Stable antiperspirant stick compsn. - has waxy barrier phase between antiperspirant and gel phase

PROCTER & GAMBLE CO 03.03.78-US-883075 (18.07.77-US-817075)

*A96 E19 (E32 E33) (28.01.81) *EP-----604 A61k-07/32*

17.07.78 as 200100 (17pp974) (E) No-Citns. E(BE CH DE FR GB NL)

Novel antiperspirant compsns. are in the form of a multiphase applicator including antiperspirant and gel phases. Each of these is at 35-65wt.% and the compsn. also contains 1-10wt.% interfacent barrier phase contiguous to both.

Antiperspirant phase comprises a solid, shearable vehicle contg. an astringent antiperspirant material. Gel phase comprises 10-92 wt.% polyhydric aliphatic alcohol with 2-3C and 2-3OH gps., and 5-15 wt.% Na or K salt of a 14-18C fatty acid as gel forming agent. The barrier phase comprises 10-40wt.% water-insoluble, alcohol-insoluble wax (mixt.) of m.pt. 65.6-102C, and 20-90 wt.% water-insoluble liq. organic emollient. The barrier phase is at least 0.127mm thick. It contains no more than0.01% of material of particle size over one micron and does not reduce the pH of the gel phase below 9.5 at the interface.

SCED/ D21 18918 C/11 =EP --22-772
Hardenable cement of poly:carboxylic acid and ion leachable material - with anisotropic particles of high flexural modulus

SCED I R 29.08.78-GB-034892

*A96 (28.01.81) *GB2028-855 A61k-06*

28.08.79 as 900975 E(CH DE FR GB SE)

(WP8000409)

WELA ★ D21 08128 D/06 ★EP --22-996
Permanent hair waving or straightening compsn. - contg. keratin reducing agent and unsatd. aliphatic carboxylic acid

WELLA AG 24.07.79-DE-929865

E19 (28.01.81) A61k-07/09

11.07.80 as 104014 (28pp200) (G) FR1268548 FR--80815 GB-773559 GB1158346 GB1198857 DE2262940 FR1043145 E(AT DE GB IT)

Permanent hair deformation e.g. waving or straightening, comprises first treating the hair with a deformation agent, keeping it in the desired shape, opt. rinsing, treating with a fixing agent and rinsing. The deformation agent comprises (1) a hair keratin reducing agent (I) and (2) an organic cpd. (II) having an aliphatic C-C multiple bond and a COOH gp., linked to this multiple bond directly or via a methylene gp. The multiple bond is activated by a conjugated CO or CN gp..

(I) is gradually bonded by addn. to (II) and inactivated for hair deformation. Concn. of (I) is thus lowered to protect the softening hair from damage, e.g. by over-crimping or break.

ESPE ★ D21 08137 D/06 ★EP --23-013
Calcium aluminium fluoro:silicate glass powder - calcium ion-depleted at surface, for use in self hardening glass ionomer cement mfr.

ESPE FAB PHARM PRAPARATE 18.07.79-DE-929121

L01 (D22) (28.01.81) A61k-06/06 C03c-03/04 C03c-12 C081-35

15.07.80 as 104101 (22pp200) (G) NO-CITNS. E(AT BE CH DE FR GB IT LI NL SE)

In CaAl fluorosilicate glass powder having average grain-size at least 0.5 microns, for use in the prepn. of self-hardening glass ionomer cements, the powder particles on the surface are Ca ion-depleted to an extent such that the quotient of the atomic ratio Si/Ca at the powder particle surface to the atomic ratio Si/Ca in the core is at least 2 (at least 3) esp. at least 4..

The powders are used esp. in bone or dental cements. The cements have reduced water-sensitivity and sufficient processing time. A high powder/liq. ratio can be used in mixed cement.

NATT ★ D21 08291 D/06 ★GB 1584-127
Aq. conditioning shampoo - contg. salt of cationic polymer, anionic and opt. nonionic surfactants

NAT STARCH & CHEM CORP 14.09.77-US-833281

A97 E19 (04.02.81) C11d-01/02 C11d-03/37

24.05.78 as 021862 (10pp1251)

Aq. conditioning shampoo, free of amphoteric surfactants, contains (on wt. of the soln.) (a) 0.1-10 (0.5-2)wt.% cationic polymer (I) of mol.wt. 5000-250000 which is the acid addn. salt of a polymer with pendent aminoalkyl ester gps.; (b) 5-30 (10-29) wt. % at leas anionic surfactant (II) and (c) 0-10 (2-8) wt.% at least one no surfactant (III). (II) are fatty alcohol sulphates and ether sulp alkaryl sulphonates, alkali metal alkyl sulphosuccinates (and esters with an alkanolamide), fatty alcohol ether sulphosucci and alkali metal alkarylpolyethoxyethanol sulphates sulphonates.

Esp. (I) are mineral acid salts of an amino (1-6C) alkyl este homo- or co-polymer of 3-5C unsatd. carboxylic acid(s), copolymer of one or more these acids with up to 50 mole % o more of vinyl acetate, propionate, (m)ethyl ether; 1-8C alkyl esters of maleic and furmaric acids, (meth)acrylic acid amide 1-18C alkyl or 2-4C hydroxyalkyl (meth)acrylates.

The compsns. clean and condition the hair simultaneous. have improved latering and are relatively inexpensive com with compsns. contg. amphoteric surfactants.

SANP ★ D21 08296 D/06 ★GB 20
Mono or di:ester or kojic acid and carboxylic acid cosmetic co - used as skin whitener and anti sun tan agent

SANSHO PHARM KK 28.06.79-JP-082257

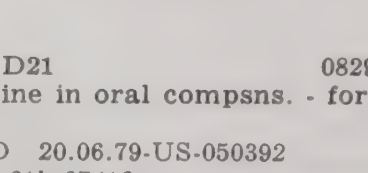
E13 (04.02.81) A61k-07 C07d-309/36

20.07.79 as 925389 (11pp478)

Cosmetic compsn. contains a mono- or diester (I) of kojic aci and an aliphatic carboxylic acid (III). (Where X is H or RCO; R the residue of (III)).

(III) include opt. unsatd. mono- and dicarboxylic acids, hydroxy- mono- (and di- and tri-) carboxylic acids. Prefd. (III) a 20C esp. 8-20C satd. aliphatic carboxylic acids. Compsns. co 0.01-10% pref. 1-5% by wt. (I), and may be conventional lot creams, etc.

(I) have excellent stability to pH, heat, and light, and are usef skin whitening and anti-suntan agents ((I) inhibit tyrosinase in and thus prevent melanin formation). (I) are absorbed from the more readily than (II), a known tyrosinase inhibitor.



(I)

UNIL ★ D21 08298 D/06 ★GB 205
Zinc salts and glycine in oral compsns. - for use as anti:calc anti:plaque agent

UNILEVER LTD 20.06.79-US-050392

B05 (04.02.81) A61k-07/16

19.06.80 as 020065 (6pp476)

Compsn. having a pH of about 4.5-8.0 comprises a physiologi acceptable Zn salt in an amt. of 0.04-2 wt.% and glycine in an am 0.01-4 wt.%, both based on the total wt. of the compsn.

The Zn ion has anticalculus and antiplaque properties, but ion Zn salts can only be kept in soln. under acid conditions, and a lo may not be wanted in an oral compsn. Certain Zn salts are sensitive to pH change but they may react with cationic germi and reduce the germicidal activity. These problems are overcon the present compsns., which allow the pH to be raised as high a without pptn. of Zn hydroxide and which do not react germicides. The compsns. also have reduced astringency.

LIOY ★ D21 08482 D/06 ★J5 515
Dentifrice compsn. contg. aluminium hydroxide as abrasive good whiteness and texture and does not corrode aluminium tub

LION DENTIFRICE KK 18.05.79-JP-061318

E33 (29.11.80) A61k-07/16

18.05.79 as 061318 (6pp5)

The compsn. contains an abrasive aluminium hydroxide, havi average particle size 5-14 microns, adhered sodium oxide co below 0.02 w/w% and Hunter's whiteness above 96 and of which w/w% slurry has pH 7-9.

LIOY ★ D21 08483 D/06 ★J5 515
Aq. oral hygiene compsn. - prepd. by combining sodium chl coated granules with compsn. contg. sodium chloride at above c

LION DENTIFRICE KK 18.05.79-JP-061320

E34 (29.11.80) A61k-07/16

18.05.79 as 061320 (5pp5)

The compsn. is prepd. by combining salt-coated granules whic obtd. by coating requisite component with sodium chloride, wit oral composition contg. sodium chloride above saturation c When pigment is used as the salt-coated granule, the prope point of brushing can be known by the dissolution of the pigme pigment, water soluble pigments, dyes, colorants, indicators, can be used; and as active ingredient sodium monofluorophosp sodium fluoride, stannous fluoride, dextranase, lysozyme, etc be used. The salt-coated granules are so prepared that their pa size is 100-500 microns.

★ D21 08484 D/06 ★J5 5153-710
itant skin cosmetic - contg. refined tar obtd. by distilling
l, animal or vegetable tar, diazotising and opt. hydrolysing
INAGA SEIYAKU KK 17.05.79-JP-059707
1.80) A61k-07/40
9 059707 (4pp5)
osmetics contg. the refined tar obtd. by distilling mineral,
or vegetable tar under reduced pressure, diazotisin
sing and opt. hydrolysing, as the effective ingredient. By
ning natural tar in skin cosmetic and skin disorders caused
he use of skin cosmetics can be prevented and by refining
l tars, the cancer-inducing substance, the mutagen, the
and the smell in natural tars can be easily removed
vely.
tarting tar coal tar and soy bean less tar are used. The tar is
distilled at 50-120 deg.C under vacuum of 5-10 mmHg. By the
almost all of cancer-inducing substance partic. benz-pyrene
removed and the mutagenic property can be decreased to ca.
s original. The distillate is dissolved in proper solvent and is
ised by treating with slightly excess of nitrite. Remaining
is decomposed with ascorbic acid, etc. and treated tar is
l or hydrolysed to convert diazonium salt to hydroxyl cpd.
eating it at 80-150 deg.C for 10-60 minutes). The refined tar is
ed to pH 7-9. The mutagenic property of the tar can be
ased to ca. 1/90 as original.

K ★ D21 08485 D/06 ★J5 5153-711
etic lotion - contains hyaluronic acid, agent to retain humidity,
ater, and is at pH 4-10
)LA KASEI KOGYO KK 19.05.79-JP-061959
6 (29.11.80) A61k-07/42
79 as 061959 (6pp5)
otion is prepd. by combining 0.01-10w/w% of hyaluronic acid of
wt. 5 x 10 power 5 - 2 x 10 power 6 or its salt in lotion which has
10 and contains 1-10w/w% of humidity-holding agent and 75-
% water.
lotion (a) contains the water such a degree that it gives proper
ness to skin and releases excessive water, (b) shows excellent
ty to skin and (c) forms film on skin which serves as the binder
rned skin. Hyaluronic acid becomes stable in the lotion at pH 4-

★ D21 08716 D/06 ★J5 5154-911
material for cosmetic or drug - comprises copolymer of alpha-
and an alpha,beta-di:carboxylic acid di:alkyl ester
TSUBISHI CHEM IND KK 21.05.79-JP-062455
6 B04 (A14 B07) (02.12.80) A61k-07
79 as 062455 (7pp22)
material for cosmetic or drug comprises copolymer of 6-60C
-olefin and alpha, beta-unsatd dicarboxylic acid dialkyl ester,
ter moiety having 1-18C atoms. The ratio of diester/olefin is 1-2
ole. The av mol wt of the copolymer is 1000-20000.
copolymer is prepd by soln or bulk polymerisation techniques
presence of radical polymerisation catalyst. The solvent for
oln polymerisation includes xylene, toluene, benzene, etc. The
nerisation is conducted at 100-200 degC.
material is stable against oxidn has no irritating action to skin
as high water vapour permeability.

★ D21 08717 D/06 ★J5 5154-912
dyeing process - using ferrous salt and cpd. which forms black
r with ferrous ion e.g. tannic acid
JN STAR HAMIGAKI K 21.05.79-JP-062928
31 (E12) (02.12.80) A61k-07/13
79 as 062928 (5pp22)
osn. contains ferrous salt and a compound which can form black
r by reaction with iron ion, such as tannic acid, etc. Hair is
arly treated with the compsn. contg. only the ferrous salt, at pH
0 and irregularly treated with a compsn. contg. both the ferrous
and the colouring agent at pH 1.0-9.0. Both compsns. may
in usual ingredients for hair cosmetic compsn. such as agent
eeping humidity, stabiliser, antiseptic, perfume, etc. Hair can
ery easily and effectively.

E- D21 71238 Y/40 =J8 1001-377
dium-contg. dental amalgam - also contains zinc and/or
ury and ruthenium, indium or nickel to enhance resistance to
osion, breakage and discolouration
C DENTAL IND CORP 19.02.76-JP-016472
*26 (13.01.81) *J52099-923 C22c-05/06 + A61k-06/04*
.76 as 016472 (6pp-)
n. of the alloy comprises adding Pd in amt. 0.5-6wt.% to basic
-component alloy for dental amalgam consisting of Ag, Sn and

small amt. of Zn and/or Hg is added to the alloy. At least one of Ru, In and Ni are also added in amt. below 3wt.%.

The Pd has good compatibility with Ag and eliminates the gamma-2 phase (Sn7-8 Hg) in the amalgam. Zinc prevents oxidn. of the alloy and mercury which is added in amt. below 3wt.% promotes amalgamation. The Pd-contg. amalgam has a suitable hardening time and shows a compressive strength about twice as high as that of the conventional material, 24 hrs. after hardening it showed an increase in strength of more than 25% than the conventional amalgam. (J52099923)

DVOS/ ★ D21 08998 D/06 ★NL 7905-285
Floating tablet of soap for the bath - is esp. valuable for elderly and handicapped persons at home
DE VOS M J 06.07.79-NL-005285
A96 (08.01.81) C11d-13/14 C11d-17/02
06.07.79 as 005285 (4pp1014)
On to a core of foamed polystyrene, esp. of the type TEMPEX (RTM), soap in the fluid state is poured so as to form a tablet with a specific gravity of less than one, enabling it to float on water.

A core of any suitable light material is acceptable, and the core may be positioned at the absolute centre of the tablet or it may be near enough to its surface. The core may be filled with air, the proviso being that it to float, so that it is of value in hospitals, rehabilitation centres, etc., and is particularly useful for elderly, esp. handicapped people at home, when they take a bath.

MIRA- ★ D21 D/06 ★RO --73-263
Skin-feeding cosmetic compsn. - contg. vitamin B and C complex from water-soluble Mippophae rhamnoides extract and enzymatic procaine hydrolysate
MIRAJ INTR PROD COS 18.06.79-RO-097882 (18.06.79-RO-097879)
(30.03.80) A61k-07

CHIM- ★ D21 D/06 ★RO --73-669
Water-repellent water- and acid-protective aq. skin cream - contg. poly:ethoxylated fatty alcohol, zinc oxide, beeswax, mono:glyceride emulsifier, vaseline and methyl para-hydroxybenzoate
CHIMICA COOP 24.01.76-RO-084612
A96 (30.03.80) A61k-07/40 A61k-09/06

ODST= ★ D21 09433 D/06 ★SU -740-248
Conc. mouth-wash compsn. - contg. cetyl tri:methyl ammonium salt, xylitol, alcohol, dye, scent and water
ODESS STOMATOLOGY(MOSV=) 14.07.78-SU-644050
B05 E16 (18.06.80) A61k-07/16
14.07.78 as 644050 (2pp938)
Mouth-wash compsn. with increased cleansing and bacteriostatic characteristics comprises (in wt.%): cetyl-trimethyl ammonium salt 0.0075-0.2; xylitol 3-5; alcohol 50-60; dye 0.02-0.05; aromatic agent 0.2-1.0 and water the rest.

For hygiene of mouth cavity, 10-20 drops of the above compsn. in 1 glass of water are used. Regular washing of mouth prevents the inflammation of mucous membrane of the buccal cavity and tooth decay. Bul.22/15.6.80.

AIRP D21 54938 B/30 =US 4245-744
Moist packaged towelette contg. polyvinyl alcohol binder - kept in contact with soln. which allows binder to dissolve when diluted
AIR PRODUCTS & CHEM INC 18.01.78-US-870551
*A81 F04 P28 P34 + Q34 (A14) (20.01.81) *EP---3-186 + B65d-81/24*
18.01.78 as 870551 (5pp393)
Packaged towelette is composed of a sheet of non-woven fibres impregnated with emulsion binder of PVAC contg. PVA as protective colloid. The binder is formed by emulsion polymerisation of vinyl acetate in the presence of 1-10 pts.wt. PVA per 100 pts. vinyl acetate. The binder is maintained insolubilised in melt condition within the package by contact with non-alkeline aq. soln. of boric acid. The binder is dissolved by flushing. Pref. PVA protective colloid ranges from partially hydrolysed to fully phydrolysed grades.

The wet tensile strength of the towellette is improved during storage but may be flushed away without clogging the plumbing system.

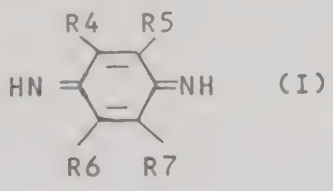
CINO/ D21 49736 C/28 =US 4245-988
Forming denture model from impression member - with alterable block representing teeth adjusted during fitting
CINOTTI W 15.12.78-US-969940
*P32 (20.01.81) *WP8001-240 + A61c-19/04*
15.12.78 as 969940 (12pp1376)
Denture models are made using an alterable block generally corresponding to the dimensions of teeth. The block is placed in the mouth to obtain the necessary shape. Pref. the block has a channel defined by inner and outer walls which receives the alveolar ridge. The block is pref. of Mizzy beeswax.

Accurate dentures can be produced on a single visit to the dentist.

BEGO- D21 60630 A/34 = US 4246-086
Artificial tooth enamelling preparation unit - has galvanising and electrophoretic baths with cathodes in glass vessels with plug in connectors
BEGO BREMER GOLDSCH 11.02.77-DE-705770
*P32 (20.01.81) *DE2705-770 C25d-01/14 C25d-13/02 + C25d-17/02*
13.02.78 as 877525 (6pp393)
Prodn. of metal-ceramic dental crowns and bridges comprises (a) applying an opaque layer of base mass to a base blank of precious metal nor Ni alloy by electrophoretic pptn. and (b) applying a dentine layer and an outer lustrous layer to the opaque layer of base mass.
Pref. the base blank is noble metal alloy and is 1st provided with intermediate metallic layer of Zn or Sn before the base mass layer (esp. TiO2 without ZrO2) is applied. Method is rapid and simple.

INOL- ★ D21 09578 D/06 ★US 4246-131
Water free, low irritant, liq. surfactant compsn. - comprises mixt. of betaine surfactant and anionic surfactant
INOLEX CORP 20.11.78-US-961972 (14.02.77-US-768203)
E19 (D25) (20.01.81) C11d-01/10 C11d-07/50
20.11.78 as 961972 Div ex 4137191 (5pp513)
Water-free, low irritant, liq. surfactant compsns. comprises a mixt. of (a) a betaine surfactant cpd. with at least one long chain aliphatic gp. attached directly to a positively charged nitrogen atom and (b) an anionic surfactant chosen from alkanolamine neutralised fatty alcohol sulphates derived from 8-18C alcohols, alkyl ether sulphates contg. 1-4 ethylene oxide gps. and an 8-18C alkyl gp., and alkyl- or alkenyl sulphonates with 10-18C in the alkyl chain.
The mixt. of (a) and (b) is dispersed in a non-aq. liq. medium comprising a water-miscible polar organic liq. with a b.pt. of at least 180 deg.C. The mol. ratio (a) to (b) is about 1:1 to 1.25:1 and the components (a) and (b) are the sole surfactants in the compsn., and comprise at least 40 wt.% of it.
Prepn. of surfactant solns. of this type is described in parent specification US 4137191 (11774B/06).
The compsns. are esp. useful in shampoos and for other light duty cleaning applicns, and have a reduced irritant effect on the eyes.

OREA D21 92054 R/49 = US 4246-181
Indoaniline dyeing compositions for ketatirnic - fibres
L'OREAL SA 11.06.69-LU-058848
*E14 P14 (E24) (20.01.81) *BE-751-753 C07c-119/12*
30.05.78 as 910901 Div ex 3929403 (+11.6.70, 11.12.70, 28.2.73, 24.7.75-US-045564, 097395, 336802, 598874) (22pp982)
Quinone diimine of formula (I) is new. In (I) R4-R7 is H, halogen, lower alkyl or lower alkoxy with the proviso that at least two of R4 to R7 are not H and R4 to R7 are not simultaneously lower alkyl and at least one of R4 to R7 is lower alkoxy.
(I) can be incorporated into a dye compsn. for keratinous fibres, esp. human hair.



(I)

LEMB/ D21 58294 B/32 = US 4246-256
Anticariogenic foods and pharmaceuticals - for oral or dental hygiene, contain lactate dehydrogenase (PT 24.7.79)
LEMBKE A (FRRR) 31.01.78-DE-804138
*B06 (D16) (20.01.81) *DE2804-138 A61k-07/28 + A61k-37/48*
24.01.79 as 006307 (6pp977)
Oral or edible low-moisture content compsn. opt. contg. su sugar substitute with lactate dehydrogenase is used to limi decay.
The compsn. pref. contains saccharose and sufficient l dehydrogenase to prevent formation of cariogenic decomp prods. or prods. promoting caries. Hydrogen acceptor is esp. p to intensify the enzyme action.
The compsn. is esp. added to other pharmaceutical prepar and to dental chewing gum.

BEEC D21 36589 A/20 = US 42
Cosmetic oil-in-water emulsion - contains spherical polym copolymer particles
BEECHAM GROUP LTD 09.12.76-GB-051372
*A96 (20.01.81) *ZA7703-116 A61k-07 + A61k-31/74*
02.02.79 as 009223 (+24.05.77-US-800026) (1pp931)
A skin degreasing and matting prod. comprises 3-10 wt.% (pre wt.%) of spherical (co)polymer particles dispersed in unpigmented aq. emulsion of a volatile, cosmetically acceptab in amt. 1-30 wt.% w.r.t. the emulsion.
The particles are of polyethylene, polystyrene ar polymethylmethacrylate and have size 5-15 microns, pref microns such that none are more than 15 microns. The vo organic oil used is a silicone or silicone glycol.
The prod. has a cream-like or lotion consistency which impa matte effect when applied to the skin.

PROC ★ D21 09640 D/06 ★US 424
Skin conditioning compsn. contg. guanidine salts - in water emollient
PROCTER & GAMBLE CO 20.10.75-US-624202
E16 (20.01.81) A61k-07/02
20.10.75 as 624202 (5pp955)
A topical skin care compsn contains 2-15% inorganic acid sa guanidine, 1-25 wt% of an emollient, and the balance water.
The guanidine salt is esp the carbonate, hydrochloride, sulp phosphate, bisulpite or hydrobromide. Suitable emollients inc hydrocarbon oils and waxes, silicone oils, triglycer acetoglycerides, ethoxylated glycerides, fatty acid esters, acids, fatty alcohols or their ethers, ether esters, lanolin (der polyols and polyether derivs, polyol esters, ester waxes, bees derivs, vegetable waxes, phospholipids sterols, fatty amides The compsn pref also includes 1-10% emulsifier esp an noni surfactant, and 1-10% of a thickener eg methyl cellulose bentonite.
The compsn reduces water loss from the skin. It is economical can be formulated in a variety of forms eg lotions, creams, s gels etc.

KOUI/ ★ D21 09712 D/06 ★WP 810
Capillary hair lotion contg. plant extracts - conditions scalp stops hair loss
YON KOUI A 28.06.79-FR-016771
(22.01.81) A61k-07/06
27.06.80 as F00101 (11pp513) (F) BE-460344 DE1492134 N(AU BR JP HU NO RO SU US) E(AT CF CG CH CM DE GA GB LU NL SE TD TG)
Hair restorer lotion for combatting hair loss, treating the scalp promoting new hair growth contains extract of Acacia spirobis extract of Santalum austracaledonicum (II) and extract of Jsam lirati (III). The lotion may also contain extract of ginger (IV).
Pref. lotions contain 1-10%, esp. 1-2.5% (I); 1-6%, esp. 1-1.5% 1-4%, esp. 1-2% (III); and 0.5-2%, esp. 0.5-1% (IV)..
The lotions have a capillary action and give good stimulation to scalp and promotion of new hair growth.

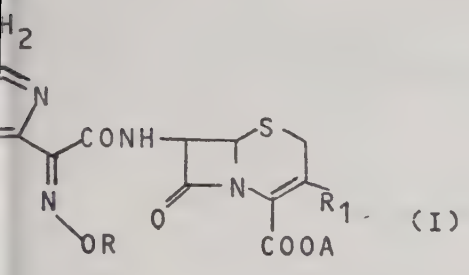
See Also

D13 US 4246292 D13 WP8100061 D16 J8 1001
D18 DS 2817092 D23 DE 2928098

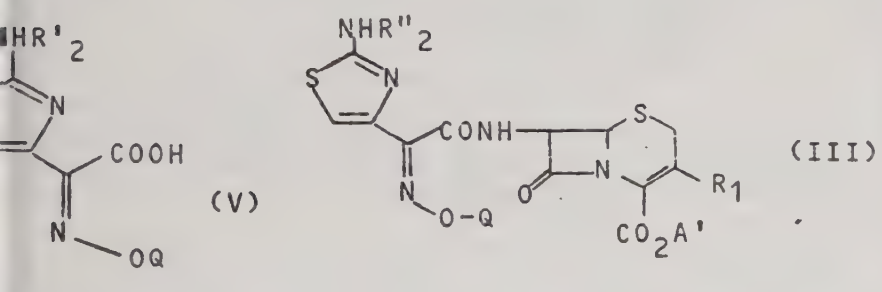
D22: BANDAGES; DRESSINGS

ENIE- ★ D22 07781 D/06 ★BE -884-301
Prodn. of blood-compatible materials - by coating with ADP-removing substance, esp. apyrase
ENI ENTE NAZ IDROCA 01.08.79-IT-024838
A96 B04 P34 (D16) (14.01.81) A61p C12n
14.07.80 as 884301 (9pp367)
Prodn. of biologically compatible materials (esp. prosthetic devices probes, tubes, needles and membranes) is effected by immobilising on a polymer or metal substrate a biological agent capable of removing ADP from the blood (esp. the enzyme apyrase).
The apyrase can be immobilised by adsorption, by crosslinking, or by covalent bonding to a functionally modified substrate. Suit substrates for covalent bonding include partially hydrol polyamides, polyesters and cellulose derivs.
The materials do not cause significant thrombocyte aggrega on contact with blood.

★ D22 07797 D/06 ★BE -884-379
no-thiazolyl-acetamido cephalosporin derivs. - useful as otics, esp. against Gram negative species
USSEL UCLAF 19.07.79-FR-018702
2 C02 (19.01.81) A61k C07d
30 as 884379 (46pp1251)
losporin derivs. of formula (I) and their acid addn. salts are R is (CH2)nSR2 (Ra); (CH2)nSCN (Rb) of CHF2. R1 is H, chloro, oxy, alkyl, cycloalkyl or alkylthio of not over 5C, CH2Sr', xymethyl, carbamoyloxymethyl, 1-4C alkylcarbonylamino or methyl. A is H, easily-cleaved ester gp., or when R is Ra also an COO, or when R is Rb also an equivalent of alkali or alkaline metal, magnesium, ammonium or N-contg. organic base. n is 2 is -C(NH)NH2 or -C(NH).NHNH2 opt. protonated. R' is opt. d. N-contg. heterocycle or 2-4C acyl). The intermediates of ulae (III) and (V) are also new. Q is CHF2 (IIIa) or (Va); or nSRc (IIIb) or (Vb). R'2 is H or a protecting gp. A' is H or an -removed ester gp. Rc is -C(NH).NH2, -C(NH).NH.NHR4 or 4 and R2 are protecting gps.)
are antibiotics effective against Gram positive and esp. Gram-tive species, particularly coliform bacteria and Pseudomanas. sual oral dose is 0.25-4g and the intramuscular dose 0.5-1g per I) can also be used as disinfectants for surgical instruments.



(I)

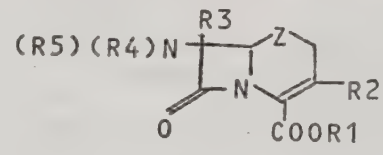


(V) (III)

I/ ★ D22 07836 D/06 ★BE -885-335
sable napkin - has layer of wadding between plastics sheet and , folded to form depressions
ARICHAL-LEMAIRE E 23.09.80-BE-885335
1 (16.01.81) A41b
80 as 885335 (3pp903)
sable napkin consists of hydrophilic wadding sandwiched en plastic sheet and cellulose paper. The edges are folded and hed to the sheet so as to form depressions.
se depressions prevent the baby from being in contact with ss and excreta.

G/ ★ D22 07838 D/06 ★CA 1092-303
ble vascular graft - comprising tube of blood-inert polymer g interconnected pores on internal surface
ACGREGOR D C 15.08.77-US-824296 (05.05.76-US-683382)
6 P32 (30.12.80) A61f-01
76 as 259054 (17pp914)
kible vascular graft consists of an elongate tube of polymeric rial which is inert to blood, at least the internal surface of the being porous and in fluid communication with a network of connected pores in the subsurface.
graft is formed by (i) uniformly dispersing solvent-elutable cles in a (dis)continuous polymer phase, (ii) forming a coherent d article from the dispersion, and (iii) eluting the particles the resulting shaped article.
vascular grafts obtd. may be small bore (i.e. less than 6 mm or large bore (i.e. greater than 6 mm i.d.). The specification ins a supplementary Disclosure (filed 16.9.77) in which the meters of the small and large bore grafts are described in more l.
grafts have particular utility as artocoronary by-pass grafts. e, nucleated cells circulating in the bloodstream colonise onto nternal pores of the graft and subsequently differentiate into cell types to form a thin, smooth, uniformly thick, firmly hed tissue covering the internal surface. This covering is ed rapidly over one month and does not increase in thickness wards. The tissue formation is not accompanied by thrombosis bolism; and once the max. thickness has been attained, the covering is self-regenerating.

FARB ★ D22 07871 D/06 ★DE 2927-462
Antibacterial cephalosporin 1-oxide and 1,1 di:oxide derivs. - prepd. by oxidation of corresp. 1-unsubstd. cephalosporin cpds.
BAYER AG 06.07.79-DE-927462
B02 C02 (29.01.81) A23k-01/17 A61k-31/54 C07d-501/18
06.07.79 as 927462 (42pp280)
Cephalosporin 1-oxide and 1,1-dioxide derivs are cpds of formula (I) and their salts are new. Where Z is SO or SO2; R1 is H, 1-(methoxycarbonyl)acetonyl; pivaloyloxymethyl, 1-((1-4C alkoxy)carbonyloxy)ethyl, phthalidyl or 1-((1-4C alkyl)carbamoylaoxy)-ethyl;R2 is H, 1-4C alkyl, halogen, OH, 1-4C alkoxy, -CH2OH, -CH2-O-CHO,(1-4C alkyl)carbonyloxymethyl, carbamoyloxymethyl, pyridinio-methyl, 4-carbamoyl-pyridiniomethyl or -CH2-S-Het in which Het is 1-(R14)-1H-tebrazol-5-yl,1H- 1,2,3-biiazol-5-yl, 2-(R15)-1,3,4-thiadiazol-5-yl, hydroxypyridazin-6-yl or 3-methyl-1,2,4-thiadiazol-5-yl; R14 is e.g. H,Me, -CH2-CH2-NMe2,R15 is H or Me; R3 is H or 1-4C alkoxy;R4 is H, 1-4C alkyl, -X-R8 or -X-CY-R8; R5 is H, -X-R8 or -X-CY-R8; or R4+R5 is;C(R6)(R7) or -X-A-X-; R6 and R7are opt substd alkyl or aryl;X is CO, SO2, Csor C:N(R16):R8 is e.g opt substd amino, alkyl, alkenyl, cycloalkyl etc or, when X is other than SO2, opt substd. alkoxy , alkenyloxy, cycloalkoxy, cycloalkenyloxy, cycloalkadienyloxy, aryloxy, alkylthio, cycloalkylthio or arylthio; A is -CH2CH2-, -(CH2)3-, -CH:CH- or (R9) n-substd o-phenylene; R9 is 1-4C alkyl, 1-4C alkyl, 1-4C alkoxy, halogen, NO2 or CN; R16 is opt. substd alkyl or aryl; Y is O, S or N(R17):R17 is H, opt substd. alkyl, aryl, alkoxy, aryloxy or -N(R18)(R19); and R18 and R19 are opt substd alkyl or aryl.
(I)are orally active antibacterial agents. They can also be used in combination with other antibacterial agents (e.g. beta-lactam antibiotics)to increase their activity or extend their antibacterial spectrum, esp against betal lactamase- forming bacteria. (I) may used as antibacterials in humans and veterinary medicine, and as preservatives for organic and inorganic materials.



(I)

FORS- ★ D22 07945 D/06 ★DE 2929-278
Deep freezing of cell suspensions - to give preparations suitable for back transfusion in tumour therapy
FORSCH BIOMEDIZINIS 19.07.79-DE-929278
B04 (29.01.81) A01n-01/02 A61k-35/14
19.07.79 as 929278 (30pp280)
Process comprises cooling the specimen to the freezing temp. T(F) by lowering the chamber temp. at a cooling rate B(I); cooling the chamber to a predetermined temp. T(U); holding the chamber at this temp. until the specimen temp. is on the plateous end temp. T(P), leaves the temp. plateau, and falls further; heating the chamber to an intermediate temp. T(O) which is below the specimen temp. T(H); maintaining the chamber at T(O) until a temp. is reached in the specimen at which 85% of the specimen mass is frozen; and lowering the chamber temp. at a cooling rate B(II) until the end temp. required for the specimen is reached.
T(U), T(P), T(O), T(F) and B are specified for lymphocytes, stem cells, granulocytes, bone marrow cells, thrombocytes and erythrocytes.

AESC- ★ D22 07967 D/06 ★DE 2930-324
Sterilisation carrier for surgical tools - with split clamping bushes in top of U/shaped strip
AESCULAP-WERKE AG 26.07.79-DE-930324
P34 (29.01.81) A61l-02/26
26.07.79 as 930324 (29pp39)
Carrier consists of a wide strip, bent to a U-shape, top face having two lines of holes (six in each line) with split bushes which exert a grip on the tools pushed in them. The side legs have round openings for ease of handling, and two more legs in the centre of the span to give additional support. The sterilisation container has intermittent salients and vertical partitions so that the carriers can be clipped in them, lying on one side.
This locates even small tools e.g. dental drills, in a precisely defined position in the sterilisation container.

KATA- ★ D22 08015 D/06 ★DE 3024-911
Antimicrobial agents for industrial use - contg. 4,5-di:chloro-1,2-di:thio-3-one and a halo:acetic acid ester e.g. lauryl bromo:acetate
KATAYAMA CHEM WORKS(YOSH) 31.07.79-JP-098299 (02.07.79-JP-084128)
E16 F09 H08 (D15) (29.01.81) A01n-31/02 A01n-37/02 A01n-43/26
01.07.80 as 024911 (47pp280)
New microbicidal/microbistatic agents contain or consist of (a) 4,5-dichloro-1,2-dithiol-3-one (I) and (b) a hloacetic acid ester.

Pref. haloacetic acid esters are cpds. of the formula (X-CH2-COO)nR (II) in which X is halogen; and n is 1 and R is not more than 18C alkyl opt. substd. by halogen, OH, NO2, phenyl and/or OR1 (R1 is 1-6C alkyl or phenyl opt. substd. by 1 or more halogen atoms); or n is 2 and R is an opt. unsatd. divalent 2-6C hydrocarbon residue; or n is 3 and R is an opt. unsatd. trivalent 3-6C hydrocarbon residue.

Antimicrobial agents active against gram-positive and -negative bacteria and fungi, for industrial use, e.g. in industrial waters and in paper production process water, heavy oil sludge, cutting oils and textile oils. (I) and haloacetic acid esters act synergistically, so that a high antimicrobial effect can be achieved with low concns. of active ingredient. In addn., the haloacetic acid ester can act as solvent and/or solubiliser for the poorly water-soluble cpd. (I); the compsn. need not contain an organic solvent or surface active agent.

SANY ★ D22 08055 D/06 ★DE 3026-431

3-Bromo or 3-iodo 2,2-di:iodo allyl ester and ester derivs. - are useful as fungicides and preservatives

SANKYO KK 14.09.79-JP-118118 (13.07.79-JP-089093)

A60 C03 F09 (29.01.81) A01n-37 C07c-69/63

11.07.80 as 026431 26431 (48pp280)

New trihalo-allyl ester and ether derivs. are cpds. of the formula X-CI:CI-CH2-O-R (I) in which X is Br or I, and R is formyl, alkanoyl (opt. carrying 1 or more halogen substituents), alkoxycarbonyl (opt. substd. by halogen, lower alkoxy and/or halo-(lower alkoxy)), alkoxycarbonylmethyl, alkoxycarbonylethyl, phenoxycarbonylmethyl, phenoxycarbonylethyl, benzyloxycarbonylmethyl or benzyloxycarbonylethyl (the phenoxy and benzyloxy residues opt being mono- or polysubstd. in the benzene ring by halogen and/or lower alkyl).

(I) are useful as fungicides and preservatives. In particular they are useful as presevatives for protecting materials such as cellulose pulp, paper, matting, fibres, leather, adhesives, paints and plastics against fungal attack.

SCHE/ D22 12217 B/07 =EP G000-773

Multichamber sterilising photo-reactor - with UV lamps and transverse chambers of adjustable thickness

SCHENCK G O 06.08.77-DE-735550

*P34 (D15) (28.01.81) *DE2735-550 A23l-03/28 B01j-19/08 C02f-01/32 + A61l-02/10*

03.08.78 as 100585 (43pp39) (G) No-Citns. E(BE CH DE FR GB LU NL SE)

A multi-chamber reactor for ultraviolet radiation, for use in the sterilization and disinfection of liquids such as drinking or swimming pool water is so designed, depending on the number of chambers and the ultraviolet ray permeability of the water, that the total absorption does not exceed a percentage of the radiation entering the reactor which is defined by a specified formula.

The reactor efficiency which passes through an optimum with increasing layer thickness is so adjusted that only a partial absorption is utilized and the departing photons are similarly used in the next layers. Improved total efficiency is obtd.

BEGH- D22 29218 C/17 =EP --22-792

Pads of laminated fabrics for mfr. of tampons, baby pants etc. - with interfacial pockets holding loose absorbent powders

BEGHIN-SAY SA 12.01.79-FR-000717

*A96 F07 P32 + P21 P34 P73 (28.01.81) *BE-880-554 A41b-13/02 A61f-13/16 A61l-15*

05.12.79 as 901666 E(AT DE GB LU NL SE)

(WP8001455)

PEEL/ D22 40016 C/23 =EP --22-801

Sterilisation treatment esp. of spore forming microorganisms - using hydrogen peroxide and UV irradiation

PEEL J L 11.01.79-GB-001091

*E36 P34 + Q31 (28.01.81) *BE-881-097 A01n-59 A23c-07/02 A23l-03/34 A61l-02/18 B65b-55/10*

07.01.80 as 900096 E(AT CH DE FR GB NL SE)

(WP8001457)

SOLV ★ D22 08083 D/06 ★EP --22-900

Wood preservative compsn. contg. two fungicides - an N-phenyl and N-tolyl fluoro-di:chloro methylthio sulphamide deriv.

DEUT SOLVAY-W GMBH 06.07.79-DE-927349

C03 F09 G02 P63 (28.01.81) A01n-47/04 B27k-03/50 C09d-05/14

29.03.80 as 101694 (26pp1251) (G) DS1238139 DE2655330 US3911134 FR2355451 EP--10635 E(AT BE CH DE FR GB IT LU NL SE)

Compsn. for preserving wood and wooden objects comprises (a) over 65, pref. over 72, wt.% of at least one low-volatility organic solvent (I) of flash point over 30 deg. C; (b) 0.35-10, pref. 1-7, wt.% of a mixt. of fungicides soluble in (I), and opt. (c) 0.1-7, pref. 0.3-3, wt.% of at least one insecticide soluble in (I). The new feature is that the insecticide component is a mixt. of N,N-dimethyl-N'-phenyl N'-(fluorodichloromethylthio) sulphamide (II) and N,N-dimethyl-N'-p-tolyl N'-(fluorodichloromethylthio) sulphamide (III).

The wt. ratio (II):(III) is 25:10-10:30, pref. 15:10-10:15, and opt. 0 pref. 2-15, wt.% of (I) can be replaced by one or more org fixatives and/or binders which are soluble in (I) and give a mi flash point over 30 deg. C..

When used together (II) and (III) are more easily soluble in (I do not bloom or crystallise out on the surface of treated wood.

ELEX ★ D22 08225 D/06 ★EP --2

Appts. for disinfecting articles in hospital - has closed treat chamber with spray nozzle supplied with water and steam

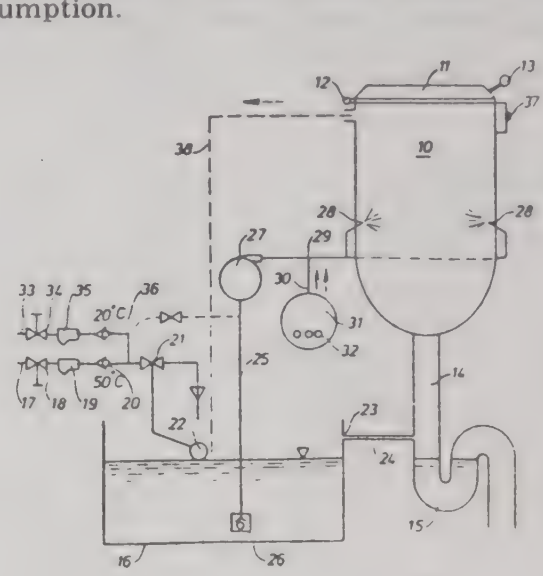
ELECTROLUX AB 12.07.79-SE-006061

P34 (28.01.81) A61l-02/06

25.06.80 as 850103 (9pp67) (E) FR1565407 DE2415963 E(AT BE CH GB LI NL)

Articles used for the personal care of patients in hospitals buckets, urine bottles, are disinfected in a closed treat chamber having a spray nozzle connected to a water supply steam generator. The articles are first flushed with cold wate then the steam generator is operated to heat the articles to abo deg. C. Finally the articles are cooled by a spray of cold water..

Disinfection is effected using simple equipment which has a energy consumption.



COLG D22 84151 A/47 =GB 158

Phenol liquid disinfectant compsn. - contg. essential oil, alke alkane sulphonate, and water

COLGATE PALMOLIVE CO 18.07.77-GB-030072

*E14 P34 (04.02.81) *BE-869-048 + A01n-25*

18.07.77 as 030072 (4pp931)

A single phase disinfectant compsn. comprises 1-10 wt.% phenolic cpd. having germical properties, pine oil, a water-so 12-20C olefin sulphonate or -alkyl sulphonate, and water; in wt. pine oil: germicide and sulphonate: germicide 0.5-4:1, such tha compsn. has a phenol coefficient of 3 or more.

Pref. the compsn. contains 1-30 wt.% of sulphonate, 1-30 wt.% lower alkanol, and 5-15 wt.% of a calcite abrasive. The phenolic is pref. a halogenated phenol e.g. dichlorometaxylenol.

The compsn. exhibits a stable single phase over a wide ran temp., and a good 'shock' emulsion when poured onto water.

KULZ D22 72816 A/41 =GB 158

Material for prepn. of bone cement - contg. acrylate copoly with glass particles and fibres to give good mechanical properti

KULZER & CO GMBH 02.06.77-DE-724814

*A96 L02 P32 + P31 Q34 (A14) (04.02.81) *BE-867-756 C08f- C09j-03/14*

23.05.78 as 021627 (6pp982)

Base material for mfg. a bone cement by admixture with a monomer and a polymerisation catalyst, comprises two or powdered copolymers of methyl (meth)acrylate. The mat additionally contains (a) 15-75 wt.% of an inorganic mat comprising 90-99 wt.% powdered biologically active glass cer having a particle size of 10-200 microns, and (b) 1-10 wt.% of vit mineral fibres having a length of less than 20 mm.

The prod. compsn. promotes the growth of bone tissue and is to handle and has good mechanical properties after setting.

VERE D22 00084 A/01 =GB 15

Absorbent cellulose-sodium CMC fibres - treated with formald giving greater absorption of liqs.

VER PAPIERW SCHICKEDANZ 27.08.76-DE-638654

*A96 P32 P34 (A11) (04.02.81) *BE-858-128 C08b-15/10*

26.08.77 as 036054 (4pp931)

An absorbent for aq. physiological liqs. comprises partially linked cellulose fibres contg. 5-20 wt.% (pref. 10 wt.%) of carboxymethylcellulose w.r.t. the cellulose.

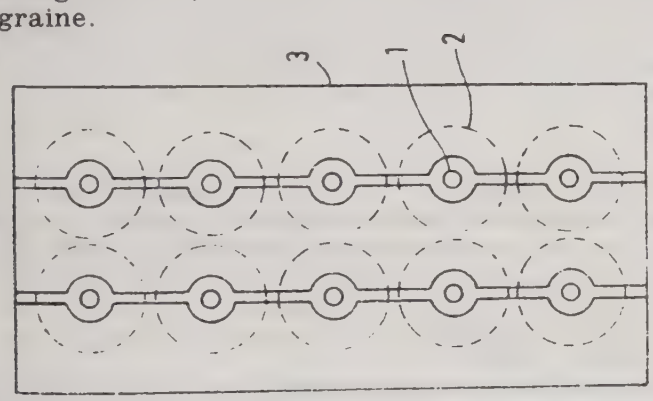
he fibres have been partially cross-linked by formalisation, e a count of 1.5-10 dtex (pref. 1.5-3.5 dtex) and length 20-120 ef. 50 mm). The fibres have been treated with polyethylene f mol. wt. 200-20,000 (pref. 400-4,000).
bsorbent is esp. used in a tampon or pad for women's , sanitary towels, babies' napkins and sheets for sick . Absorption of liqs. is rapid. and retained when pressure is .

D22 67081 A/38 = GB 1584-138
of di:amino-glycosyl-di:amino-cyclitol antibiotics - useful as pectrum antibacterial agents
ER AG 19.03.77-DE-712160
*C02 (04.02.81) *BE-865-015 A61k-31/71 C07h-15/22*
as 010043 (36pp918)
trisacchimide derivs. of antibiotics sisomicin, verdamycin, ycin, tanamycin, gentamycins A,B,B1,C1,C1a,C2, C2a,C2b , also the antibiotics G418, 66-40B, 66-40D, JI-20A, JI-20B and nd their 5-epi, 5-epi-amino-5-deoxy and 5-epi-azido-5-deoxy , mutomycins 1,2,4,5 and 6 which carry on at least one N atom it. of formula (I) and their salts are new. X is -CH2- or -C(O)-, t bonded to R1, Y is O or S, R is opt. substd. alkylene and R1 is bstd. alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aralkyl, aryl erocyclic opt. linked with Y via a methylene gp. When R is l to R1 they together represent an opt. substd. heterocyclic ntg. one or two hetero atoms.
derivs. have good antibacterial properties and can be admin. ruminants in animal feed.

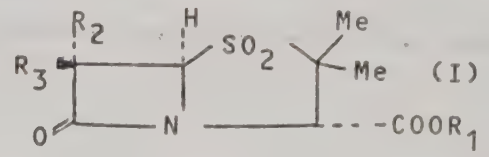
-X-R-Y-R1 (I)

- ★ D22 08301 D/06 ★GB 2052-993
lhesive healing plaster - with magnetised ferrite disc held on ve side
CO AG 11.07.79-DE-U19808
P32 P34 (04.02.81) A61f-13/02 A61n-01/42
9 as 029286 (3pp1358)
r has a magnetised ferrite disc located on the adhesive side so contacts the skin. The plaster is pref. round and the disc is shaped and has a magnetic flux density of more than 500

mber of plasters are pref. applied to wax release paper which en preperforated and precut. The disc is e.g. 4-6 mm in dia. mm thick, and the plaster 20 mm in dia. The plaster is for use . treating bursitis, arthritis, tendonitis, muscle cramp, back r migraine.



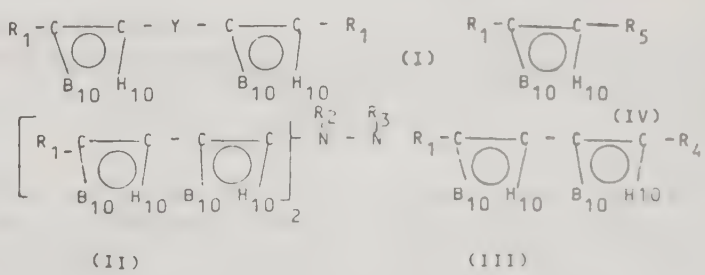
3 ★ D22 08334 D/06 ★GB 2053-220
substd.-penicillanic acid 1,1-di:oxide derivs. - useful as acterial and beta-lactamase inhibiting agents
YER AG 04.07.79-DE-927004
0 B02 C02 (04.02.81) A61k-31/43 C07d-499
30 as 021524 (16pp985)
substd. penicillanic acid 1,1-dioxide derivs. of formula (I) and salts are new. In (I) R1 is H or an ester forming gp.; R2 is H, Br, ubstd. alkoxy, opt. substd. alkylthio, azido, opt. substd. alkyl, ubstd. cycloalkyl, aryl, aralkyl, heterocyclyl, acyl, carboxy or ; R3 is H, halogen, azido, opt. substd. alkyl, opt. substd. alkoxy, substd. cycloalkyl, aralkyl, aryl, opt. substd. alkylthio, ocyclyl, acyl or R5R9N; or R2+R3 forms R5R6N-N= or C=; provided R2 and R3 are not both H, azido or acyl; R4 is opt. H. alkyl, opt. substd. cycloalkyl, opt. substd. aralkyl, aryl or ocyclyl; R5 is an R4 gp., H, opt. substd. alkylsulphonyl, ulphonyl, heterocyclylsulphonyl or aminosulphonyl; R6 is an ., H or acyl; or NR5R6 is a 4-7-membered heterocyclic ring opt. further heteroatoms; R7 and R8 are each H, opt. substd. alkyl, ubstd. cycloalkyl, aryl, aralkyl or opt. substd. amino; or CR7R8 3-7 membered carbocyclic ring opt. contg. 1 or more oatoms; and R9 is H, opt. substd. alkyl, opt. substd. cycloalkyl, aralkyl, heterocyclyl or opt substd. alkylsulphonyl.
ds. (I) are antibacterial and beta-lactamase inhibiting agents. are useful in fighting bacterial infections, in promoting animal th and as preservatives for e.g. polymers, lubricants, paints, fibres, leather, paper, timber, foodstuffs and water. (I) show activity against staph. aureus, staph. epidermidis, Staph. aerogenes, Gasskya tetragena, Strep. pypgenes, Diplococcus pneumoniae, Neisseria gonorrhoeae, N. meningtides, N. catarrhalis, N.flava, Bacillus anthracis, B.subtilis; and B. cereus. Dose is 5-1000, pref. 10-200 mg/kg/day.



YOSH ★ D22 08712 D/06 ★J5 5154-905
Antiseptic compsn. for wood - comprises di:nonyl:polysulphide and tri:alkyl or tri:aryl tin cpd.
YOSHITOMI PHARM IND KK 22.05.79-JP-063578
C01 E12 F09 (C03 E17) (02.12.80) A01n-41/12
22.05.79 as 063578 (4pp22)
Strong antiseptic compsn. for wood, comprises di-t-nonylpolysulphide and trialkyl or triaryl tin cpd. The trialkyl tin cpd. includes bistributyl tin oxide, tributyl tin phthalate, tributyl tin sulphamate, tributyl tin oleate, tributyl, tin laurate, tributyl tin palmitate, tributyl tin stearate, bistrimethyl tin oxide, bistriethyl tin oxide, etc. and the triaryl tin cpd. includes triphenyl tin hydroxide, etc. Ratio of the polysulphide compound to the tin cpd. in the composition is 10/1 to 1/10, pref. 3/1 to 1/3 by wt.
The compsn. is dissolved in organic solvent, and also there are incorporated surface active agents, dispersion aids, emulsifiers, etc.
The compsn. is applied on the surface of wood or wooden materials.

YOSH ★ D22 08713 D/06 ★J5 5154-908
Antiseptic for wood prods. - contains a thiourea deriv. mixed with an adhesive
YOSHITOMI PHARM IND KK 21.05.79-JP-063017
A81 C03 F09 (C01) (02.12.80) A01n-47/28
21.05.79 as 063017 (4pp22)
Compsn. contains, as active ingredient, a cpd. of formula R1R2N-C(S)-NR3R4 (I) (where R1 is lower alkyl, aryl, R2 is H, lower alkyl, R3 is lower alkyl, aryl, and R4 is H, lower alkyl) and trialkyl tin cpd. or triaryl tin cpd.
The compsn. is useful as antiseptic for piled wooden substances. Examples are methyl thiourea, phenyl thiourea, naphthyl thiourea, and the like. The trialkyl tin cpd. includes tributyl tin laurate, tributyl tin stearate, tributyl tin palmitate, bistributyl tin oxide, etc. The triaryl tin cpd. is triphenyl tin hydroxide, etc. Ratio of the thiourea cpd. to the trialkyl or triaryl tin cpd. in the compsn. is 10/1 to 1/10 (3/1 to 1.3) by wt. The compsn. is mixed with adhesive agent such as phenol formalin resin, melamine formalin resin, etc. and the mixt. is applied to the wood.

SHIO ★ D22 08750 D/06 ★J5 5154-982
Antitumour, antimicrobial closo or nido carbolan derivs. - the nido cpds. being also used as preservatives for foods or disinfectants
SHIONOGI KK 24.05.79-JP-064175
B03 C01 (D13) (02.12.80) A61k-31/69 C07f-05/02
24.05.79 as 064175 (17pp69)
1,2-Closo type of carbolans of formulae (I)-(IV) and corresp. 7,8-nido type of carbolan and its salts, are new. In the formulae, R1 is H, alkyl or aryl; R2 and R3 are each H, alkyl or aryl or R2 and R3 in combination forms alkylene; R4 is alkyl or halogen; R5 is -(CH2)mCH3 or -(CH2)m-OR6 (m is 3-15; R6 is aryl) and Y is -N:N, -NR2-NR3-, -S-S- or -(CH2)m- (m is 3-6); (except 1,2-cross type of carbolan where Y is -S-S-).
Carbolan cpds. are known as remedy for cerebral tumours or antimicrobial drugs and novel carbolan derivs. of formulae (I)-(IV) have excellent antimicrobial action. Nido cpds. may be used as preservatives for foods or as disinfectants for surfaces or instruments.



KOKE ★ D22 08851 D/06 ★J5 5155-643
Bone Prosthesis contains collagen deriv. - obtd. by removing the organics from animal bone, heating, polymerising with methacrylate and impregnating the collagen deriv.
KOKEN KK 23.05.79-JP-063551
A96 B04 P32 (04.12.80) A61f-01
23.05.79 as 063551 (3pp117)
Animal bone is treated with a 1-5% H_2O_2 soln. contg. 1-10% NaOH to remove organic material, and then burned at 600-1000 deg.C and baked at 1000-1200 deg.C. A monomer soln. composed of a methacrylate is then impregnated into the bone and then polymerised. Collagen deprived of its terminal peptide is then impregnated into the bone by dipping it in collagen soln.
The artificial bone, has compsn. similar to the living tissue and no antigenicity. It causes no negative reactions within living tissues. The artificial bone can be formed into any desired shape.

TSUB ★ D22 08953 D/06 ★J8 1000-580
Fungicide and rat poison - comprises tetra:chloro:isophthalonitrile, used to protect paper, wooden boards, paint etc.
KUMIAI CHEM IND KK 00.00.74-JP-140539 (07.06.71-JP-039289)
C03 E14 G02 Q43 (08.01.81) A01n-27/34 E04b-01/92
07.06.71 as 140539 74 Div.ex.39289/71 (3pp83)
Combined fungicide and rat poison comprises tetrachloro isophthalonitrile (I). (I) is effective at 0.01 to 10.0% suspensions or emulsions and is applied to wood surfaces, paint, decorative paper, etc. (J50141117).

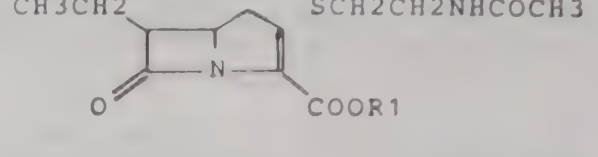
KIRI ★ D22 08959 D/06 ★J8 1000-790
Mould resistant labels - contg. e.g. alkyl para-hydroxy-benzoate(s) in varnish layer
KIRIN BREWERY KK 17.05.77-JP-056872
E14 G02 P85 (09.01.81) G09f-03/02
17.05.77 as 056872 (5pp83)
Mould-resistant label contains anti-mould agent (I) in surface varnish layer and is used for bottles for beverages.
(I) is e.g. alkyl p-oxybenzoates added to varnish at 0.5 to 10 wt.%. (J53141600).

PITT D22 94671 X/51 = J8 1001-134
Ultraviolet light irradiation plant - with first radiators and reflectors for centre and second for selvages of workpieces
PPG INDUSTRIES INC 02.06.75-US-583311
*A35 J04 V05 P34 + P42 P75 Q71 (12.01.81) *DE2624-224 B01j-19/12 B05d-03/06 B41m-07 C08f-02/48 F21v-19*
27.04.76 as 048363 (7pp)
UV irradiation plant for the sterilisation or polymerisation of resin systems contains a first UV light source with reflectors which produce a greater luminous density near the middle of the workpiece surface. A second adjustable UV light source with reflectors is set up to project a greater luminous flux to the selvages of the workpiece as it travels through the plant.
This is a simple method of avoiding under-exposure of the selvages or over-exposure of the central parts. When used for the polymerisation of plastics, it is a quick and simple way of hardening even resins with little or no volatile solvents with great uniformity.(J51145184)

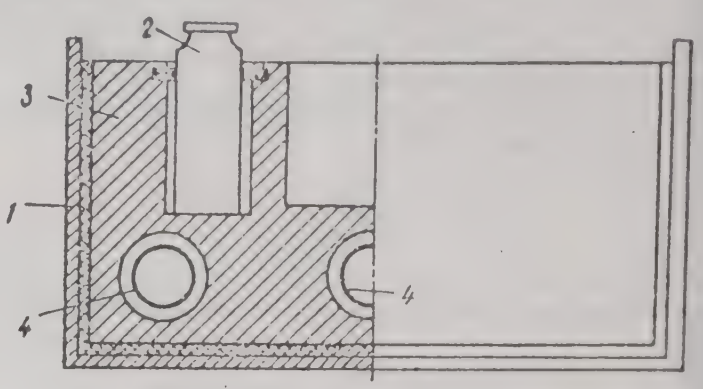
AMCY ★ D22 D/06 ★RO --73-307
Surgical suture thread prodn. - by isotactic polypropylene extrusion, liq. hardening and drawing and repeated heating and drawing
AMERICAN CYANAMID CO 23.07.77-RO-091150
A96 F01 P34 (30.03.80) A61l-17

FORE- ★ D22 D/06 ★RO --73-695
Protecting wood against blueness and mould - with aq. soln. contg. thio-organic derivs., e.g. thiourea, and inorganic cpds., e.g. boric acid
INTR FOREST TRANSP 22.02.78-RO-093290
C03 E16 F09 P63 (E36) (30.03.80) B27k-03/52

SAOC D22 72706 A/41 = SU -738-517
De:thia-penicillin derivs. from new Streptomyces species - useful as antibacterials and beta-lactamase inhibitors
SANRAKU OCEAN (PANL) 31.03.77-JP-035375
*B02 C02 (D13) (05.06.80) *BE-865-578 C12d-09/14*
31.03.78 as 596895 (20pp)
Dethiapenicillin derives. of formula (I) and where R1 is H their salts are new (R1 is H, lower alkyl or trityl). A biologically pure culture of the strain Streptomyces A271(ATCC 31358; FERM P 3984) is also new. (I; R1 is H) is prepd. by culture of this strain; it can then be converted to esters by reaction with RY (R is alkyl or trityl. Y is leaving gp., esp. halo)
(I) are antibiotics and inhibitors of beta-lactamase. They are useful therapeutically against Gram positive or negative species; as synergists for penicillins and cephalosporins sensitive t
lactamase; as animal feed additives; food preservati
disinfectants. A dose of 0.5g/kg. intraperitoneally in mice ca
death. Bul. 20/30.5.80.



BELU ★ D22 09086 D/06 ★SU
Conveyor and storer for biological media - has heat transfe
made from hollowed out heat conducting material, holding co
and heater
BELORUSSIAN LENIN UNIV 29.12.75-SU-306423
P32 (08.06.80) A61d-07/02
29.12.75 as 306423 (2pp132)
The storer comprises a casing housing the containers of the
contacting a heat-transfer agent, and a heater. To impro
simplify operation, the agent is made of solid heat cond
material hollowed out to take the containers and the heate
21/5.6.80.



BASH= ★ D22 09406 D/06 ★SU-
Antibacterial methyl di:hydro-pyran - used for preventing gro
sulphate-reducing bacteria in flooded oil-bearing rock stra
transport etc. systems
BASHKIR PETRO RES(UFAP) 20.06.78-SU-656465
C02 E13 H01 Q49 (H03) (06.06.80) E21b-43/22
20.06.78 as 656465 (2pp314)
4-Methyl(5,6)-dihydro-(2H)-pyran bacterial growth suppr
dosage is 0.0005-0.1 wt.% in the oil bed water, or other petr
contg. systems. It may be supplied continually or periodically.
The agent is considerably more effective, esp. a lower concn
as 0.001-0.005 wt.%, than prior art agents, e.g. ac
Bul.21/5.6.80.

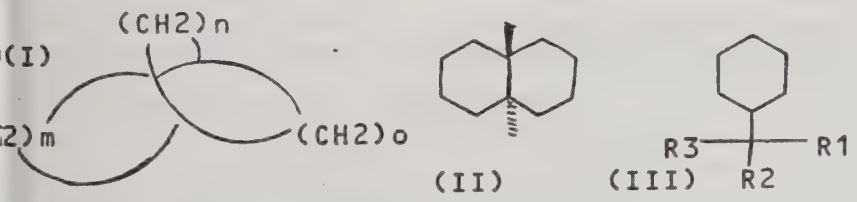
RIME= ★ D22 09432 D/06 ★SU-7
Kidney allo-transplant normal function evaluation - by evaluat
enzymic activity of glycine amidine-transferase in pri
perfusate
RIGA MED INST 07.06.78-SU-628259
P31 (18.06.80) A61b-10
07.06.78 as 628259 (3pp938)
Physiological activity of kidney allotransplant can be evaluat
perfusion of the transplant with buffer soln. and determinir
transferase enzyme activity in the perfusate. In order to dete
the suitability of the kidney allotransplant for subse
transplantation, the enzymic activity of glycine-am
transferase in the primary perfusate, (obtd. e.g. from renal v
donor's kidney), is estimated by incubation with buffer-sub
mixt. followed by the addn. of colour complex forming agent
photometric analysis.
Enzymic activity of 0.157 +- 0.51 internation units in first 9.
ml. of the perfusate indicates that the transplant has full func
activity and is suitable for transplantation into recipient's body
22/15.6.80.

HAEM = ★ D22 09436 D/06 ★SU-
Compsn. for treatment of large wound and burns - contg. calc
sodium alginate, tetracycline, methyl-uracil, glycerol and coll
HAEMATOLOGY BLOOD 20.06.73-SU-937263
B05 (18.06.80) A61k-37
20.06.73 as 937263 (3pp938)
The compsn. for the treatment of slow healing wounds and
comprises (in wt.%): calcium or sodium alginate 30-50; tetrac
1-5; 6-methyl-uracil 1-2; glycerol 2-3 and collagen the res
compsn. accelerates the regeneration of damaged tissues, pr
the growth of microorganisms and reduces the amts. of
dressing material used during the treatment.
The compsn. can be used for the treatment of deep and ext
burns before plastic surgery. Typically, after 20 days of trea

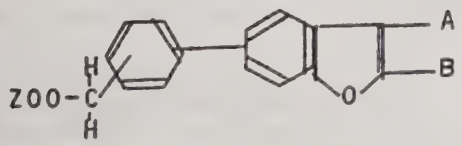
the above compsn. of third degree burns, the surface area of aged tissues was reduced by 50% (65-70% in some cases). 2/15.6.80.

N D22 12326 A/07 = US 4245-630
ible multilayer band partic. of adhesive surgical dressing - ng transverse tear lines for detachment of units of any length MITH & NEPHEW LTD 05.08.77-GB-032985 (08.10.76-GB-2046)
*96 P32 + P34 P73 (20.01.81) *BE-859-491 A61f-13 B32b-07/06*
.79 as 017062 (11.10.77-US-840665) (8pp1376)
i-layered strips tearable into individual medical dressings ists of a backing layer, an adhesive layer, an absorbent layer, a removable protective layer on the adhesive layer.
ch layer is clearly finger-tearable and at least one layer can be from any point along its length to facilitate transverse tearing e other layers.
ef. the absorbent layer is of styrene-butadiene foam rubber r.

C D22 83011 C/47 = US 4246-129
l, water dispersible compsn. for toilet bowl dispensing - prising organic sulphate or sulphonate and solubility reducing t
ROCTER & GAMBLE CO 18.04.79-US-030976
*19 (20.01.81) *EP--18-679 C11d-17/04 + C11d-07/26*
.79 as 030976 (12pp924)
l, water-dispersible compsn. comprises (A) 40-99.5% of an nic surfactant selected from organic sulphates and sulphonates, -59.5% of perfumes, dyes, Mn stain inhibiting materials, bleach vators, diluents and/or their mixts., and (C) 0.5-20% of a bility reducing agent.
e solubility reducing agent is selected from ROCO.R and .OR' where R' is (m)ethyl and R is selected from (i) (m,n,o) cloalkane derivs. of formula (I), (ii) (4.4.0)bicyclo-trans- decalin . of formula (II), and (iii) a cyclohexane deriv. of formula (III), iv) a n-nonyl moiety.
the formulae, m is 2-3, n is 1-2 and o is 1-2; a non- bridgehead site e R moiety is attached to the balance of the molecule in each ; R1-3 are each (m)ethyl or propyl. The compsn. is used as a solid actant cake which may be placed in a toilet tank disperser to ibute surfactant etc. to a toilet bowel when the toilet is flushed.



L ★ D22 09597 D/06 ★US 4246-179
oxymethyl-phenyl-3-alkyl-benzofuran derivs. - useful as mediates for broad spectrum antimicrobials
IKER LABS INC 21.01.80-US-113531 (19.12.77-US-862014)
02 C02 (20.01.81) C07d-307/79
.80 as 113531 Div ex 4153721, 4208337 (+21.2.79-US-013543) 1248)
oxymethylphenyl-3-alkylbenzofuran derivs. of formula (I) are In the formula Z is H or 1-4C alkyl; A is Me or Et; and B is H or carboxylate.
are intermediates in the prepn. of corresp. 2-nitro cpds., which broad-spectrum antimicrobials described in US 4153721 (Der. B/21). (I) may be directly nitrated (when B is H) or converted to o cpds., then nitrated.



(I)

CRIH/ ★ D22 09647 D/06 ★US 4246-295
Sterilisation and reinforcement of art objects - by impregnation with unsatd. resin, then treatment with ionising radiation
CRIHAN I G 15.09.78-US-942664
A97 K08 P34 P42 (20.01.81) A61l-01 B05d-03/06
15.09.78 as 942664 (4pp478)
Art objects (prepd. of organic material and contg. biological vectors) are sterilized and structurally reinforced as follows; (a) the object is placed face down on a vacuum source and the vacuum is applied; (b) the area to be reinforced is impregnated with an unsatd. resin (I) while the vacuum is applied so that (I) is drawn in to the required depth; (c) (I) is polymerised in situ with ionising radiation to kill any biological vectors present.
Treatment not only strengthens a variety of objects (tapestries, oil paintings on canvas, and wood carvings, etc.), but also kills living worms, eggs, moulds, mildews, fungi, and spores, etc.

DENT- ★ D22 09711 D/06 ★WP 8100-047
Dental articulator with removable mounting plate - having complex protrusions engaging mating plate permitting removal of portions of model
DENTAL ESSENTIALS 09.07.79-US-055502
A96 P32 (22.01.81) A61c-19
21.05.80 as U00610 (22pp295) (E) US2786272 US3704519 US2619725 N(JP) E(AT CH DE FR GB LU NL SE)
A dental model is removably attached to an articulator by a mounting plate and interlocking mating plate. The model is bonded to the mounting plate and the mating plate is attached to the articulator. The mounting plate has a series of complex protrusions which mate with similar depressions in the mating plate to provide a positive interlock.
The density of the protrusions is sufficient that a single tooth cut from the model will carry a number of protrusions and can thus be repositioned accurately in the mounting plate..
The articulator is used to construct a dental model. Individual teeth may be removed and replaced repeatedly.

FIRM ★ D22 09714 D/06 ★WP 8100-051
Perfume releasing articles - with a permeable polymer wall, contg. perfume components and a low polarity material to promote the perfume
FIRMENICH SA(HOLZ/) 26.06.79-CH-005948
A97 E19 P34 (A18) (22.01.81) A61l-09/04
27.05.80 as CH0064 (14pp513) (F) FR2091855 FR2336946 US3578545 N(AU CH DE GB JP NL US)
Liquid-tight article for perfuming ambient air or enclosed spaces, contains a perfume compsn. enriched with substances of low polarity which may or may not be fragrant, and comprises at least one wall of polymeric material allowing the active perfume ingredients to diffuse outwards. Typically the walls are 0.01-2 mm. thick and are of polyethylene, polypropylene, ethylene-ethyl acrylate or EVA. The low polarity substance is e.g. benzyl acetate, linalyl acetate, terpene cpds., aliphatic or aromatic hydrocarbons, alkyl glycol ethers and aliphatic or aromatic esters..
The presence of the low polarity substances promote uniform release of the perfume components by diffusion through the polymer wall. The articles are easier to make and to use and have improved performance in comparison with prior art perfuming methods such as aerosols, solid prods. based on gels, etc. The articles can also be used for dispensing insecticides such as dimethyl dichloro vinyl phosphate.

See Also
D13 J5 5154909 D13 US 4246292 D15 EP--23040
D21 EP--23013

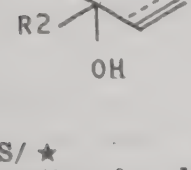
D23: OILS; FATS; WAXES

II ★ D23 07896 D/06 ★DE 2928-098
ododecyl tert. butyl ether perfume prepn. - by acid-catalysed ododecanol etherification with isobutylene in an inert solvent
ASF AG 12.07.79-DE-928098
15 (D21 D25) (29.01.81) A61k-07/46 C07c-41/06 C07c-43/18 C11d-3/50
.79 as 928098 (8pp200)
ododecyl-tert. butyl ether, (I), which is new, is prepd. by the g inorganic or organic acid-catalysed etherification of cyclododecanol with isobutylene, in an inert solvent, at 0-100 deg C.
(I) has a pleasant animalic-wooden-amber-like fragrance and its use as a perfume is claimed. (I)can be produced economically and used as perfume in cosmetics, cleansers, detergents and for improving the odour of technical prods. The isobutylene can be used as a 4C hydrocarbon mixt. and is etherified selectively.

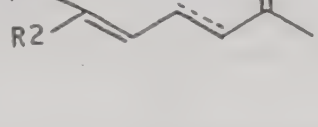
BADI ★ D23 08102 D/06 ★EP --22-955
Unsatd. ketone prodn. from unsatd. alcohol and acetoacetate - with addn. of liq. of intermediate boiling point, useful as perfumes and vitamin precursors
BASF AG 18.07.79-DE-928944
B05 E17 (28.01.81) C07c-45/68 C07c-49/20
01.07.80 as 103719 (28pp1251) (G) DS1053498 DS1793445 DS1068695 FR2371411 GB-951927 GB-822572 GB1463184 E(AT BE CH DE FR GB IT LI LU NL SE)
Prodn. of unsatd. ketones of formula (I) comprises reacting alcohols of formula (II) with acetoacetates of formula

MeCO-CH2-COOR3 (III)

in presence of organic aluminium cpds. to cleave the alcohol R3OH which is removed by distillation through an attached fractionating column.
(R1 is 1-4C alkyl;
R2 is opt. unsatd. 4-30C alkyl, cycloalkyl or cycloalkylalkyl;
R3 is 1-4C alkyl).
The alcohol (II) has a higher b.pt. than (III) and reaction is carried out in presence of 0.5-100 wt.%, on (II), of a liq. (IV) which is either inert or does not react to form unwanted by-prods. The b.pt. of (IV) is between that of (III) and R3OH, and the temp. at the lower end of the fractionating column is not more then 40, pref. 20, deg. C above the b.pt. of (IV) at all pressures used. Pref. a 4-7C inert ketone is used as (IV).
The prods. include geranyl or farnesyl acetone which are perfume components and intermediates for isophytol. When reaction is carried out in presence of 3-methyl-1-buten-3-ol, 2-methyl-2-hepten-6-one is formed which is an intermediate for Vitamins A and E.



(II)



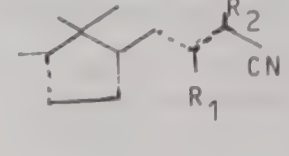
(I)

EYSS/ ★ D23 08250 D/06 ★FR 2453-893
Installation for distilling essential oils from aromatic plants - reduces heat and cooling water requirements by recycling
EYSSERIC D 10.04.79-FR-009572
J01 (12.12.80) B01d-03/02 C11b-09/02
10.04.79 as 009572 (12pp448)
Batch of plants is enclosed in a distn. chamber which is then supplied with steam from a steam generator. Vapour from the distn. chamber is passed to a condensing column from which distillate is delivered to an oil separator
The installation has additional features: (a) a tank for recovering cooling water from the condensing column as well as aq. effluent sepd. from the distillate oils in the separator; (b) an evapn. tower to which water from the recovery tank is pumped. The tower exhausts vapour to atmos. to eliminate a vol. of water roughly equal to the distillate effluent recycled from the separator; (c) a pumping system to recycle as cooling water to the condensing column all the non-evaporated water collected at the base of the evapn. tower; and (d) mains water make-up and overflow to drain are fitted to the recovery tank. These ensure balanced condition in the water recirculation system.

NISC D23 08744 B/05 = GB 1583-819
Linalool prepn. - by hydrogenating O-linalyl-N,N-di:methyl: hydroxylamine under specified hydrogen pressure using metal catalyst
NISSAN CHEM IND KK 18.05.77-JP-057385
*E17 (04.02.81) *J53144-514 C07c-33/02*
08.05.78 as 018266 (6pp937)
Linalool is produced by hydrogenating O-linalyl-N,N-dimethyl hydroxylamine of formula (I) under a hydrogen partial pressure of not more than 30 kg/cm souare in the presence of a catalyst. The catalyst comprises a combination of Ni and/or Co modified with Al, Ge, Sn, As, Sb, S, Se or Cr. The atomic ratio of the modifying component to Ni and/or Co is 0.01:1 to 2:1. The hydrogenation is carried out at 50 to 120 deg.C in an inert solvent.
Process is economical and suitable for industrial use.

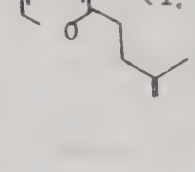
(I)

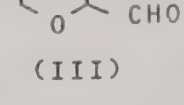
POLA ★ D23 08329 D/06 ★GB 2053-199
Tri:methyl substd. cyclopentane butane and butene nitrile(s) - are useful as perfumery agents
POLAK'S FRUTAL WORKS INC 09.05.80-GB-015525 (09.05.79-GB-015960)
E15 (04.02.81) C07c-121/46
09.05.80 as 015525 (6pp478)
4-(1,1,2-trimethyl 5-cyclopentyl)butane and butene nitriles (I) new: (Where R1R2 is H or 1-6C alkyl, but total R1 + R2 is not ab 6C; dotted lines are single bond (SB) or double bond (DB), but on (DB) in the side chain). Includes (E) and (Z)-isomers.
(I) are useful as perfumery chemicals in soaps, deterge cosmetics, polishes, etc.

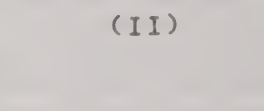


(I)

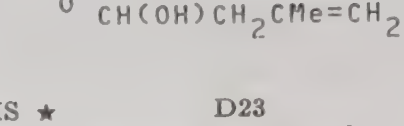
FIRM ★ D23 08330 D/06 ★GB 2053-
Methyl substd. butenyl furan - intermediate in a commer synthesis of rose furan, perfume ingredient
FIRMENICH SA 00.00.80-GB-016940 (28.06.77-CH-007902)
E13 (04.02.81) C07d-307/36
21.06.78 as 016940 (3pp478)
3-Methyl-2-(3-methylbut-3-en-1-yl)furan (I) is new. Prepn. compri 3-Methyl-2-(3-methylbut-3-en-1-yl)furan (I) is new. Prepn. compri adding 2 methyl propen-2-en-1-yl magnesium halide (II) to furfu (III) to yield 2-(1 hydroxy 3 methyl but-3-ene- 1-yl) furan (IV), (IV reacted with an alkyl orthoacetate in the presence of a catalys carboxylic acid or organic protonic acid of pKa 7-9 at 25 deg.C to g (V); (V) is hydrolysed and decarboxylated to give (I).
(I) is an intermediate in the synthesis of the corresp. 2-bute isomer (rosefuran), a constituent of Bulgarian rose oil.

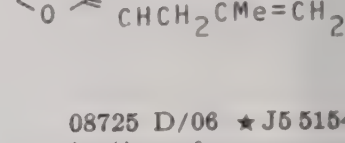

(I)


(III)

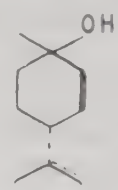


(II)





TAKS ★ D23 08725 D/06 ★J5 515-
Para-menthen-1-ol cpds. prodn - by isomerisation of epoxy cp polar solvent contg. caustic alkali, alkali metal amide or a metal alcoholate
TAKASAGO PERFUMERY KK 21.05.79-JP-062402
E15 (02.12.80) B01j-31/02 C07c-29/56 C07c-35/18
21.05.79 as 062402 (6pp75)
Prepn. of p-menthen-1-ol cpds. of formula (II) (where the dotted l is opt. present) comprises isomerising an epoxide of formula (I) polar solvent in the presence of caustic alkali, alkali metal amic alkali metal alcoholate.
The p-menthen-1-ol cpds. can be obtd. in such high yields of 60 using conventional appts. They are useful as perfuming agents, can be converted to piperitol or piperitenol, useful as perf substance and also a material for synthesising mentho esterificn. with a lower carboxylic acid, then allyl conversio saponificn. by means of a caustic alkali.



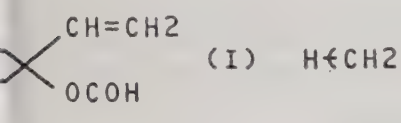
(II)

(I)

HASE ★ D23 08734 D/06 ★J5 51
2,3-Butane:diol ester(s) perfume (modifying) agent(s) - prep reacting 2,3-butane:diol with carboxylic acid, acyl halide or anhydride
HASEGAWA KK 23.05.79-JP-062717
E17 (02.12.80) A23l-01/23 C07c-67/08 C07c-69
23.05.79 as 062717 (13pp75)
2,3-Butanediol esters of formula R1-O-CHMe-CHMe-O-R2 (I) R1 and R2 are H or -COR3, (in which R3 is H alkyl or alkenyl except where R1 and R2 are both H are novel.
Method comprises contacting 2,3-butanediol of formula HOC CHMe-OH with carboxylic acid deriv. of formula; (R3CO)nX (X is -OH or halogen (n is 1) or oxygen (n is 2) opt.in the presenc catalyst.

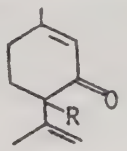
D23 08735 D/06 ★J5 5154-941
n. of terpene unsatd. alcohol ester(s) - involves adding e reducing agent to the ester(s) in distn. to prevent uration
WAMURA INST CHEM RES(DNIN) 22.05.79-JP-062224
E19 (02.12.80) C07c-67/54 C07c-69
) as 062224 (4pp69)
n of terpene series of unsatd alcohol esters (TE) comprises alkaline reducing agent (I) on distilling terpene series of rated alcohol esters. Pref (I) is an alkali salt of formic acid, acid or ascorbic acid or hydrazine or sodium borohydride. (I) added in, an amt of 0.01-10% of wt of crude ester. Pref TE is acid ester, benzoic acid ester, methylcarbonic acid ester thylcarbonic acid ester, (sic), propylcarbonic acid ester(sic) acid ester, farnescyl-acetic acid ester or geramylacetic acid of dehydrolinalool, linalool, dihydrolinalool, geraniol, Nerol, roneolidol, farnosor, isophytol, phytol or citroneral.
olouration of terpene series unsatd alcohol ester may be ed.

★ D23 08736 D/06 ★J5 5154-942
of unsatd. terpene formate(s) - by addn. of organic acid, used rmaceuticals, perfumes, agricultural chemicals
INIPPON INK CHEM KK(DNII) 22.05.79-JP-062223
5 E19 (02.12.80) B01j-31/04 C07c-01/24 C07c-11/21 C07c-67/28 7c-69/07
79 as 062223 (5pp69)
of terpene formates of formula (I) (where R1 is H or Me; R2 is noid of formula (II) or alkyl contg. the isoprenoid gp.) partic. rolinalyl formate, linalyl formate, dehydronerolyl formate, l formate or citronelyl formate, comprises addn. of an organic ref. aliphatic monobasic acid, in an amt. of 0.1-10 (0.2-3) wt.% esters are useful as intermediates for the prodn. of hemicals and as agrochemicals verse and partic. are useful as nes, and those terpene series. The saturated formates are useful. Hydrolysis during redn. is inhibited and a prod. with urity is obtd.



(I) H{CH2-C(CH3)=CH-CH2}1-5 CH2- (II)

D23 08346 Y/05 = J8 1000-415
isopiperitenone derivs. used in perfume mfr. - are prepd. by ing halogenated alkyls with isopiperitenone
IYO KORYO KK 09.06.75-JP-068505
*5 (08.01.81) *J51146-439 C07c-49/64 + C07c-45/68*
75 as 068505 (3pp136)
l substd. isopiperitenones are of formula (I) (where R is hyl). (I) are used as the intermediate for synthesis of irones as violet perfume and in perfume compsns.
are prepd. by applying halogenated alkyls (CH3I, CH3Br, I, etc.) to isopiperitenone contained in polar solvents (DMSO, A, etc.) in the presence of alkalis (sodium alcoholate, NaNH2, H, etc.). (J51146439)



(I)

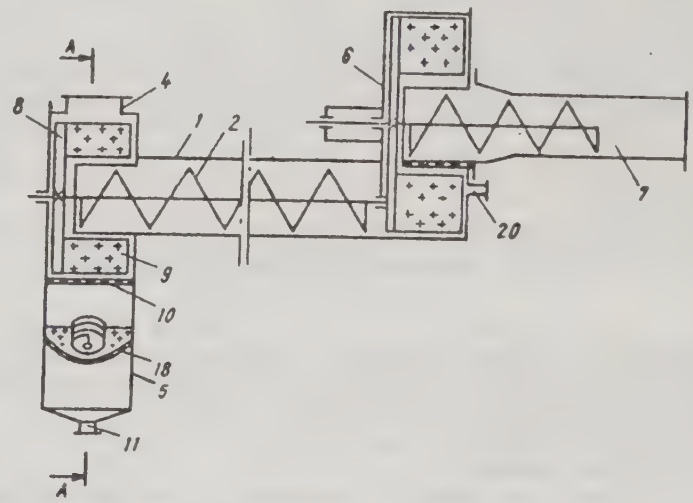
D D23 30641 V/16 = J8 1001-063
rting pineapple flavour to foodstuffs - using 2-methyl-6-ypyrazine
ENERAL FOODS CORP 28.06.72-US-266859
*3 (10.01.81) *US3803-331 A23l-01/23*
73 as 073238 (3pp)
cially flavoured foodstuff comprises a foodstuff and 2-methyl-xypyrazine in amt. effective to impart a fresh pineapple ur and aroma. Foodstuffs used include both solid foods and ages which may have little or no food value, e.g., ctionary. Compsn. may also be used in e.g. naceuticals.(J49048873)

II- ★ D23 D/06 ★RO --73-405
l-heptenone perfume and perfume intermediate prepn. - by nsing acetone and 1-chloro-3-methyl-2 butene using sodium xide and tetra:alkyl ammonium chloride catalyst
TR MED BUCURESTI(INSC) 13.01.78-RO-092888
7 (30.03.80) C07c-49/04

FRAG = ★ D23 09290 D/06 ★SU -739-055
Methyl-ionone isomer mixt. - by condensing citral and methyl ethyl ketone using sodium bi:sulphite, used in perfumery
FRAGRANT MATER RES 17.02.78-SU-580885
E15 (08.06.80) C07c-45 C07c-49/20 C11b-09
17.02.78 as 580885 (4pp114)
Methyl-ionone isomer mixt. contg. mainly alpha-isomethyl- ionone is used as perfumery agent with violet fragrance). It is prepd. by condensation of citral and methyl ethyl ketone (MEK) at elevated temp. in presence of Na2SO3.
For increased yield and reduced waste water pollution the process is conducted in presence of 0.05-1mole NaHSO3 per 1 mole citral (pref. 0.2-0.25 mole addn.).
The process uses 1.5-5%Na2SO3 soln. and gives under optimum conditions (viz. 0.2-0.25 moles NaHSO3) 75-76% yield on final prod. increased by 20-25%.

ZAKH/ ★ D23 09292 D/06 ★SU -739-057
Satd. food grade carboxylic acids - by reacting di:propyl-aluminium-chloride and ethylene over titanium tetra:chloride catalyst and prod. carboxylation
ZAKHARKIN L I 11.08.77-SU-521286
E17 (08.06.80) C07c-51/15 C07c-53/22
11.08.78 as 521286 (3pp114)
Even-numbered satd. carboxylic acid (e.g. lauric, myristic acid etc. esp. used in prepn. of animal and vegetable fats) are prepd. by hot reaction of organo-Al cpd. with ethylene in organic solvent. e.g. o-xylene, benzene, toluene, n-undecane, n-nonane before carboxylating the prod. with heat under pressure.
The process is selectvity is (93.8-95.3%) and the prod. purity is increased by using dipropyl-Al-Cl (I) at 50-60 deg. C in presence of 0.5 mol.% TiCl4 catalyst (on wt.Al) to give higher odd-numbered (3-29C) dialkyl-Al-Cl prod. which is carboxylated at 100-250 deg. C and 50-300 atmos.
The proposed method gives high purity prods. which may be utilised for foodstuffs without special and difficult purifcn.

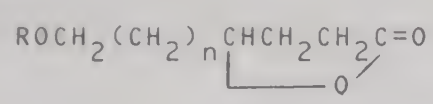
ESTE = ★ D23 09316 D/06 ★SU -739-085
Countercurrent essential oil extractor - has settling tank housing closed vessel with bottom hole discharge pipe
ESTER OILS CULTURES 11.07.77-SU-506962
(05.06.80) C11b-09/02
11.07.77 as 506962 (3pp89)
Improved conditions of extracting essential oil and reduced losses of the latter are achieved by improved reliability of draining juice and water. The settling tank holds a closed vessel with holes in the wall while the bottom has a discharge pipe and a float valve. After filling 3/4 of column with the solvent raw material is fed to the unit where blades dip it while the auger conveys the stock towards the expresser.



ABPE = ★ D23 09317 D/06 ★SU -739-086
Modified peat wax used in anti-adhesive compsn. - obtd. by chlorination of peat wax in hydrocarbon solvent with opt. UV irradiation
AS BELO PEAT INST 12.04.77-SU-471223
(05.06.80) C11b-11
12.04.77 as 471223 (4pp314)
Peat wax is modified for use as an anti-adhesive agent, useful for its inertness to isocyanates, by dissolving in a hydrocarbon solvent and chlorinating.
Chlorination is carried out directly at 10-45 deg.C or under UV irradiation at 0-10 deg.C for 2-5 hrs. The solvent is then distilled.
The method is simple and a good quality prod. is obtd. In a prefd. process the degree of chlorination is not greater than 30%.

SOSH D23 82515 A/46 = US 4246-182
Omega-hydroxy fatty acid prodn. - by hydrogenolysis of substd. butyrolactone deriv., useful in perfumery etc. and as intermediates
NL 30.10.78)
SODA KORYO KK 26.04.77-JP-047346
*E17 (E13 E14) (20.01.81) *DE2818-126 C07c-51/09 C07c-67/08*
21.03.79 as 022600 (+18.4.78-US-897641) (8pp924)
Prepn. of omega-hydroxy fatty acids of formula (I) ROCH2(CH2)nCH2CH2CH2COOH (where R is H or acyl and n is an integer or 0-18) comprises catalytically reacting omega-hydroxy (or acyloxy)-alkyl-gamma-butyrolactone of formula (II) in the presence of a hydro-genolysis catalyst selected from Pd and Pt, and a promotor selected from cation exchange resins, zeolites, (poly) phosphoric acids and p-toluene sulphonic acid at 50-250 deg.C under atmospheric pressure to 150 kg/sq.cm.

The process is simple and pollution problems are avoided. It also provides high selectivity and high conversion rates. The prods. are useful as intermediates in the prodn. of macrocyclic musk perfumes.


(II)

CORP ★ D23 09598 D/06 ★US
Extn. of oil from vegetable material - by grind
agglomerating paste of material then drying to facilitate ex
CPC INTERNATIONAL INC 19.11.79-US-095741 (25.
945264)
(20.01.81) C09f-05/02 C11b-01/10
19.11.79 as 095741 (5pp955)
Moistened comminuted vegetable material contg. 25-55 wt. is formed into agglomerates by pushing through a screen, a are dried to a moisture content below 15%. They are then e with an oil solvent.

The process does not require bulky equipment, and overheat the material. Extn. is rapid and complete, and fin cause processing difficulties are not released into the ex soln. The residue has a high bulk density.

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

HENK D25 65752 U/44 = DS 2217-692
Phosphonic acid derivs - of polycarboxlyc acids for use as complex-formers for polyvalent metal ions
HENKEL KG AUF AKTIEN 13.04.72-DE-217692
*C04 E11 M11 (D15) (29.01.81) *DE2217-692 B01j-19 C02f-05/14 C07f-09/38 C11d-03/36*
13.04.72 as 217692 (6pp1045)
Cpds. such as ;- 1-phosphonopropane-1,2,3-tricarbonic acid; 1-phosphonobutane-2,3,4-tricarbonic acid; 1,1-diphosphonopropane 2,3-di-carbonic acid; 2-phosphonobutane- 2,3,4-tricarbonic acid, and 2,2-diphosphonobutane 3,4-dicarbonic acid, are used, possibly in the form of their water soluble salts as complex builders for multivalent metal ions.

They are used for preventing the precipitation of multivalent metal ions, in the washing of laundry and the softening of water, where they cause stains; for the prevention of corrosion and lime deposits in cooling water, and so on. They find application also in systems where copper ions have an undesired influence, such as for the prevention of the breakdown of per-cpds. or for the stabilising of fats and soaps.

Cpds. can be used in less than stoichiometric amts. They are hydrolysis stable and have a low phosphorous content.(DS)

FARH D25 45553 V/25 = DS 2259-830
Detergent and clear rinsing agent combination - for dish washing machines contg. calcium hydroxide and citric acid monohydrate
HOECHST AG (KNAP) 07.12.72-DE-259830
*(29.01.81) *DE2259-830 C11d-10/02*
07.12.72 as 259830 (5pp068)
Dishes or glasses are cleansed by machine in two stages. In the first stage there is used a cleansing agent comprising 50-54 pts. wt. of a granulated, partly hydrated sodium tripolyphosphate of 5-10 wt.% water of crystallisation, 30-35 pts. wt. anhydrous granulates sodium metasilicate, 4-5 pts. wt. anti. soda, 1-4 pts. wt. sodium dichloroisocyanurate, 2.5-4 pts. wt. citric acid monohydrate 0.8-1.1 pts. wt. (Ca(OH)2, 0-0.5 pts. wt. perfume and 1-5 pts. wt. of a nonionic surface active cpd. In the second rinsing stage there is used a clear rinsing agent comprising 2-5 pts. wt. of a 10-14C aliphatic alcohol mixt. reacted with 11 mole equivalents of ethylene oxide, 8-12 pts. wt. of a nonionic surfactant, 20-35 pts. wt. citric acid monohydrate, 0-2 pts. wt. perfume 0-20 pts. wt. 1-4C aliphatic alcohol and water to make up 100 pts. wt.

The process has optimum cleansing and inhibition to corrosion.(DS)

KAOS D25 19119 X/11 = DS
Sodium percarbonate or perborate having high specifi produced by reaction with hydrogen peroxide in presence o surfactant
KAO SOAP KK 20.08.74-JP-095235
*E34 (29.01.81) *DE2536-283 C01b-15/10*
14.08.75 as 536283 (5pp068)
Sodium percarbonate of high specific vol. is prepd. by sodium carbonate or its aq. soln. with an aq. soln. of h peroxide, at least one of these solns. contg. a water-soluble, organic surface active agent in a conc. greater than that ne micelle formation but less than 5 wt.%, based on the wt. of reaction mixt. Sodium percarbonate is pptd. and the crysta mixed with a compatible binding agent, e.g. carbox cellulose, and extruded into granules. The prod. has g properties and may be used in cold water detergent compsns

CHEM D25 43765 Y/25 = DS
Washing textiles in automatic washing machine - with controlled addn. of active ingredients before or during wash
CHEM WERKE HULS AG 04.12.75-DE-554592
*A97 E12 + P43 (E17 E34) (29.01.81) *DE2554-592 D06f-33 01/12*
04.12.75 as 554592 (18pp68)
Textiles are washed in an automatic washing machine, ad active cpds. (a) cleansing agent, (b) builders, (c) opt. s bleach, (d) opt. catalyst for bleach, (e) opt. 1 or more organ and (f) opt. a softener separately and in the correct quantity form that can be pumped into the wash liquor before or d washing cycle. Textiles and water are added to the machine a liquor ratio of 1:4 to 1:300.5 and up to 3.5 g. cpd. (a) and 2-6 (b) added per litre of liq., the water is opt. heated and t agitated opt. with the addn. of 0.1-0.5 g./litre cpd. (c) and during an active washing time of up to 50 mins.

The liq. is then pumped out and 2-5 rinsing cycles carried while adding 0.02-0.1 g. cpds. (e) per litre during one cycle adding 0.1-0.5 g. cpd. (f) per litre during another cycle. The c pref. N-acetyl caprolactam and cpd. (c) is pref. a mixt. of H dipicolinic acid in water.(DS)

CIBA D25 47748 A/27 = DS
Improving the surface tension property of fluoro surfact adding specified per:fluoroalkyl cpd. and/or magnesium sal
CIBA GEIGY AG 30.12.76-US-756032 (30.12.76-US-756031
*B05 C03 E16 (D21 E14) (29.01.81) *BE-862-459 B01f-17*
24.12.77 as 758013 (15pp913)
Cpds. of formula (Rf)nTmZ (I) which have an aq. solubility 0.01 wt.% at 25 deg.C are used, opt. with magnesium s

ıcing the surface tensions of aq. solns. of cation active, anion ve, non-ionogenic, amphoteric or mixed-function fluorinated ides.

the formula, Rf is 1-18C perfluoroalkyl opt. substd. by 2-6C luoroalkoxy; n is 1 or 2; T is divalent -R3- or gp. -R3SCH2CHR1- s 1-12C (halo)alkylene, 6-12C arylene, 2-12C alkylenethioalkylene lkyleneiminoalkylene, where the N-atom of the imino gp. is sec. rt.; R1 is H or 1-12C alkyl; Z is a neutral or polar gp. -CONR2R4, - CONR2COR4, -SO2NR2R4, -R3OOCR2 or -CO2R2; R2 and R4 are pendently H or 1-12C alkyl opt. mono- or di-substd. by OH, - CH3, SH or -CONH(CH3); and m is 0, 1 or 2.(DS)

IL ★ D25 08073 D/06 ★DS 3020-269
fuming anionic surfactant-contg. powdery cleanser compsn. - ng perfume clathrate in cyclodextrin to prevent perfume loss on rage
UNILEVER NV 28.05.80-DE-020269
D17) (29.01.81) C11d-03/50
5.80 as 020269 (8pp200)
ne prepn. of a storage-stable, perfume-contg. powdery detergent npsn. contg. an anionic tenside. The perfume is present as a fume clathrate with a cyclodextrin. Alpha- or beta-cyclodextrin technical cyclodextrin mixts., opt. contg. linear dextrin, are d.
athration prevents or reduces perfume loss by evapn. and mical degradation, but the perfume is released instantly and ntitatively in use. Perfume displacement from clathrate at room p. is promoted by anionic tensides.

NK ★ D25 08130 D/06 ★EP --22-998
v-foaming detergent prepn. - by spray-drying sodium salt mixt. ating with polysiloxane and silicic acid mixt. and adding orbate to detergent granulate
HENKEL KG AUF AKTIEN 20.07.79-DE-929359
A97 E34 (28.01.81) C11d-01/82 C11d-11/02
7.80 as 104033 (25pp200) (G) DS2748970 DE2646127 DE2338468 2909757 DE2753680 US4136045 E(AT BE CH DE FR GB IT LI NL

r-foaming detergent compsns. contain several powdery to nular components. One of the powdery components consists of a rsiloxane anti-foaming agent adsorbed on a carrier and the aining powdery components consist of spray-dried or granulated idard detergents and opt. bleaching agents.

the prepn. of the polysiloxane anti-foaming agent-contg. dery component, a surfactant-free aq. suspension contg. 40-75 %, calculated as anhydrous cpd., of at least one Na phosphate, silicate, carbonate or sulphate, and no more than w.r.t. anhydrous salt, of polysiloxane anti-foaming agent, is y-dried using hot gases at 120-300 deg. C. The granular spray- l., contg. 80-95 wt. % anhydrous salts, is treated with 3-10 wt. %, t. anhydrous salt, of polysiloxane anti-foaming agent consisting liq. mixt. of polysiloxane and finely- divided silicic acid in wt. 50 : 1 to 5 : 1. The granular adsorbate is then mixed with the her powdery components in wt. ratio such that the detergent psn. contains 0.01-0.5 wt. % silicic acid-contg. polysiloxane anti- ning agent.

CM- D25 90454 Y/51 = GB 1584-001
honation process employing a venturi reactor - esp. for honation of organic cpds., e.g. for detergent mfr.
CHEMITHON CORP 27.05.76-US-690652
719 J04 (04.02.81) *DE2723-333 C07c-141/04 C07c-143/34
5.77 as 022159 (14pp974)
eous sulphonating agents are continuously reacted with honatable liq. organic reactants to produce a sulphonic acid or hate ester. The sulphonating agent is SO3. It is flowed, urrently with particles of the liq. reactant, between a pair of ed apart films of cooling liq. The cooling liq. is cooled recycled tion prod. The reaction takes place during the flowing. The liq. icles agglomerate to form the films.
rods. are not charred or discoloured and hence are suitable for nfr. of detergents.

IM- D25 90454 Y/51 = GB 1584-002
honation process employing a venturi reactor - esp. for honation of organic cpds., e.g. for detergent mfr.
CHEMITHON CORP 27.05.76-US-690652
719 J04 (04.02.81) *DE2723-333 B01j-19/26 C07c-141/04 C07c-143/34
5.77 as 016097 /79 Div.ex. 1584001 (14pp974)
eous sulphonating agents are continuously reacted with a honatable liq. organic reactant to produce a sulphonic acid or hate ester. The sulphonating agent is SO3 and both it and the liq. ant are introduced to the approach zone of a venturi. The liq. nic reactant on introduction is atomized to liq. particles and the tion takes place during passage through the venturi.

Prods. are not charred or discoloured and may be used for the mfr. of detergents.

KAOS ★ D25 08400 D/06 ★J5 5152-799
Alkaline detergent compsn. for marine prods - consists of phosphate(s), carbonate(s), sodium hydroxide and condensed phosphate
KAO SOAP KK 16.05.79-JP-059897
(28.11.80) C11d-07/16
16.05.79 as 059897 (5pp126)
The phosphate selected from di- or tri-sodium phosphate, or K2PO4. The carbonate is selected from Na2CO3, NaHCO3 or K2CO3. The condensed phosphate is of formula Mn+2PnO3n+1 or (MPO3)n (where n is 2-6, and M is an alkali metal).

Pref. concn. of the alkaline agents is 0.1-1wt.%. Pref. condensed phosphate is Na or K pyrophosphate, Na or K polyphosphate, etc. Compsn. comprises 95-15 pts.wt. phosphates, carbonates, and NaOH and 5-85 pts.wt. condensed phosphate.

The compsn. is very soluble in water under usual washing temp., has superior defatting and detergent effect, and the whiteness and lightness of the treated prods. are excellent without generating undesirable odours accompanying discolouration by oiling.

NICH- ★ D25 08817 D/06 ★J5 5155-097
Detergent compsn. providing resistance to soil redeposition - contains water soluble modified starch having grafted acrylate monomer units
NICHIDEN KAGAKU KK 24.05.79-JP-064763
A97 (03.12.80) C11d-03/22
24.05.79 as 064763 (4pp126)
Compsn. contain water-soluble modified starch having at least one monomer unit selected from addition- polymerisable water-soluble monomer units and those made soluble in water by hydrolysis, as side chain grafted to starch. Pref. 0.05-5 wt.% of the graft-modified starch is admixed in the detergent compsn.

The monomer unit is pref. acrylic acid, methacrylic acid, sodium acrylate, sodium methacrylate, acrylamide, methacrylamide, hydroxtethyl acrylate, hydroxyethyl methacrylate, hydroxypropyl acrylate, hydroxypropyl methacrylate, polyethylene glycol acrylate polyethyleneglycol methacrylate or vinyl acetate.

The detergent compsn. has superior effect for preventing redeposition of soil for cotton and synthetic or blended fibre fabric.

ASAE D25 04418 X/03 = J8 1001-358
Rinse aid compsns - contg sorbitan fatty acid ester/alcohol, fatty acid, alcohols
ASAHI ELECTROCHEM 05.10.73-JP-112123
E19 (13.01.81) *J50062-211 +C11d-01/66
05.10.73 as 112123 (7pp-)
Rinse aid compsns. contd. 60-90% sorbitan fatty acid ester (I) and 3-40% alcohol(s), or (I) 40-90, alcohol(s) 5-40, and fatty acid 0.5-5%.

In an example, rinse aid compsn. used as spot remover for machine-washed tableware was composed of Span 20 40, ethanol 40, and water 20% and used with rinse water in 1:5000-15,000 ratio. (J50062211)

SEKI/ D25 37326 A/21 = J8 1001-360
Non-pollutant multipurpose detergent compsn. - contg. egg yolk oil, albumen, chrysanthemum vinegar and opt. a lower alcohol
SEKIYA T 27.09.76-JP-115609
G04 (13.01.81) *J53040-006 C11d-07/44
27.09.76 as 115609 (3pp-)
Pollutionless multipurpose detergent contains yolk oil, albumen, chrysanthemum vinegar, and opt. a lower alcohol. The detergent is used for laundry, kitchen detergent, dusting, polishing artificial teeth, etc. All kinds of fabrics from silk to cotton, those soiled by blood or lipstick, can be cleanly washed without using softening agent or antistatic agent. When it is applied to rusted steel, the rust is removed. The amt. required of this detergent is very small.

In an example, 650 ml. albumen and 500 ml. yolk were obtd. from 20 eggs. The 500 ml. yolk was frizzled on a frying pan which has been heated to ca. 220 deg.C. After 20 mins. 180 ml. oil which has oozed out, was collected. 200 g. Edible chrysanthenum was boiled in hot water, and the prod. was dipped in apple vinegar (500 ml). After allowing to stand for 25 days, chrysanthemum was removed, and ca. 500 ml. chrysanthemum vinegar was obtd. 180 ml. Yolk oil, 650 ml. albumen and 500 ml. chrysanthemum vinegar were mixed with 550 ml. ethanol to obtain undiluted soln. of the detergent. It was diluted to ca. 80 times with water to obtain the final prod. (J53040006)

SHER- D25 86394 C/49 = WP 8100-106
Foam stabiliser for foam contg. alkyl benzene sulphonate(s) - alkoxyalkyl di (hydroxyalkyl) amine oxide(s), used in washing powders etc.

SHEREX CHEM CO INC 27.06.79-US-052665

*E16(E14) (22.01.81) *BE-884-057 + B01J-13 C07C-93/02 C11D-03/30*

23.06.80 as U00785 (35pp597) (E) US3317430 US3449431 US3341459 US3402128 US3449430 US3456012 N(AU BR JP NO).E(DE FR GB NL SE)

A foam stabiliser for foam contg. an alkylbenzene sulphonate foaming agent is an amine oxide of formula (I).

R1-O-R2-N(R3)(R4)-O (I)

(in which R1 is 4-11C alkyl, R2 is 2-4C alkylene and R3 and each 1-4C hydroxyalkyl). (I) is used in foamable compsns. may be in liquid, powder or gel form..

Cpds. (I) are used in clothes- and dish-washing compsns foams, hair rinses, etc. They are relatively inexpensive, ar effective and are less irritating to the skin and the eye alkanolamide stabilisers.

See Also

D13 US 4246292 D21 US 4246131 D23 DE 29

AAZP= 01.08.77 AS AZERB PETOCHEM D16 E17 H02 (E13) *SU -739-082
Purificn. of liquid paraffinic hydrocarbon fraction - 09313D/06
ABMI= 30.01.78 AS BELO MICROBIOLOG D16 *SU -739-103
Nutrient for culturing of ethanol assimilating microorganisms - 09334D/06
ABPE= 12.04.77 AS BELO PEAT INST D23 *SU -739-086
Modified peat wax used in anti-adhesive compsn. - 09317D/06
ADOL/ 21.05.79 ADOLFSSON R F R D13 J02 *DK 7902-077
Method and plant for introducing gas into liquid - D/06
AESC- 26.07.79 AESCULAP-WERKE AG D22 *DE 2930-324
Sterilisation carrier for surgical tools - 07967D/06
AGEN 00.00.75 AGENCY OF IND SCI TECH D17 (D16) =J8 1001-074
Glucose isomerase prodn - 60737X/32
AGEN 05.10.76 AGENCY OF IND SCI TECH D15 =J8 1001-148
Purification of waste water - 39600A/22
AGEN 18.10.76 AGENCY OF IND SCI TECH D15 =J8 1001-156
Cleaning waste water to reduce COD and BOD - 42977A/24
AGEN 28.12.78 AGENCY OF IND SCI TECH D15 J04 *J5 5090-856
BOD determn. appts. has carbon di-oxide trap - 08377D/06
AGEN 24.05.79 AGENCY OF IND SCI TECH C04 D15 *J5 5155-797
Preventing release of nitrous oxide during denitrification - 08896D/06
AGRO- 28.06.73 INST AGRONOMIC B04 D16 *RO --69-939
Genetic tuberculosis-resistant taurine identification - D/06
AIRL 05.03.75 AIR LIQUIDE L' D12 =DS 2608-815
Poultry cooling tunnel - 72534X/39
AIRL 07.10.76 AIR LIQUIDE L' D15 *US 4246-111
Appts. for biological treatment of waste water - 09566D/06
AIRP 18.01.78 AIR PRODUCTS & CHEM INC A81 D21 F04 (A14) =US 4245-44
Moist packaged towelette contg. polyvinyl alcohol binder - 54938B/30
AJIN 19.09.72 AJINOMOTO KK B05 D16 E16 =J8 1001-078
L-lysine prodn - 61502U/41
AJIN 07.11.77 AJINOMOTO KK B05 D16 E19 =J8 1001-077
Purificn. of aminoacid produced by fermentation from waste molasses - 51404B/28
AJIN 10.04.79 AJINOMOTO CO INC B05 D13 E14 =FR 2453-845
Alpha-L-aspartyl-L-phenylalanine ester sweetening agents purificn. - 77325C/44
ALBR 29.07.76 ALBRIGHT & WILSON LTD D16 =GB 1584-035
Isomerised hop extract prepn. - 84795Y/48
ALFA 06.07.79 ALFA-LAVAL AB D16 E17 *NL 8003-504
Continuous fermentation process for ethanol prodn. - 09003D/06
ALFA 09.07.79 ALFA-LAVAL AB D16 *DE 3025-677
Continuously cold-stabilising wine - 08036D/06
ALKU 22.06.77 AKZO NV A35 D15 E36 J01 =EP G000-214
Solid carbon-contg. material with metal ion sorption capacity - 02330B/02
ALKU 11.06.79 AKZO NV A97 D22 E14 S05 (S03) =NO 8001-728
Steam sterilisation indicator contg. tablet of fusible material - 06046D/05
ALKU 15.06.79 AKZO NV D16 =BR 8003-668
Alcohol removal from fermented drinks - 75366C/43
ALLD/ 12.02.79 ALLDREDGE R L D15 J01 *US 4246-119
Up:wash sand filter with diaphragm hold down - 09572D/06
ALPH- 05.07.79 ALPHA THERAPEUTIC A96 B04 D16 *WP 8100-050
Prodn. of hepatitis B vaccine - 09713D/06
AMCY 23.07.77 AMERICAN CYANAMID CO A96 D22 F01 *RO --73-307
Surgical suture thread prodn. - D/06
AMCY 02.03.79 AMERICAN CYANAMID CO C03 D13 =J5 5153-568
Improving feed efficiency and weight gain in ruminants - 68162C/39
AMPO- 10.11.69 AMERICAN POTATO CO D13 =DS 2055-287
Dehydrated potato prodn - 40711S/24
AMSA 05.06.79 AMERICAN STERILIZER D22 S05 T06 =SE 8003-561
Sterilising apparatus control - 00215D/01
ANVR 09.04.79 AGENCE NAT VALORISATION D12 *FR 2453-605
extracting sinew from meat - 08228D/06
ARIM/ 23.12.75 ARIMA K B01 D16 =J8 1001-079
Microbiological preparation of (3)-oxo-bis norcholadienic acid - 56513Y/32
ASAE 05.10.73 ASAHI ELECTROCHEM D25 E19 =J8 1001-358
Rinse aid compsns - 04418X/03
ASAE 18.08.75 ASAHI DENKA KOGYO D13 =J8 1001-050
Conc. milk substitute water-oil emulsions - 24515Y/14
ASAH 11.03.75 ASAHI CARBON KK C03 D13 =J8 1001-058
Spirulina platensis and Spirulina maxima as bird feed additives - 84200X/45
ASAH 08.06.76 ASAHI KASEI KOGYO K D15 =GB 1583-996
Preservation and transport of live fish and shell fish - 20467A/11
ASAH 28.10.76 ASAHI KASEI KOGYO A97 B04 D16 =US 4246-351
Porous co:polymeric protein adsorbent - 33716A/19
ASAH 11.07.79 ASAHI KASEI KOGYO K B05 D16 *NL 8003-985
Fermentative prodn. of salicylic acid derivs. and analogues - 09011D/06
ASAH- 22.09.77 ASAHIMATSU KORIDOFU D14 =US 4245-553
Steam pressure cooking autoclave for soya beans etc. - 08060B/05
AZOV= 18.02.72 AZOV BLACK SEA FISH D14 *SU -738-578
Fish, meat products curing appts. - 09073D/06

BACH/ 13.05.76 BACH J D13 X25 X26 =GB 1583-884
Heat treatment of food prod. esp. sterilising jam - 75924Y/43
BADI 10.05.79 BASF AG A97 D25 E17 (A25) =J5 5152-798
Low-foaming biodegradable nonionic surfactants - 86732C/49
*BADI 12.07.79 BASF AG D23 E15 (D21 D25) *DE 2928-098
Cyclododecyl tert. butyl ether perfume prepn. - 07896D/06
*BADI 18.07.79 BASF AG B05 D23 E17 *EP --22-955
Unsatd. ketone prodn. from unsatd. alcohol and acetoacetate 08102D/06
*BALA/ 08.06.76 BALANDIN E M D15 *SU -739-005
Removing suspended solids and colloidal cpds. from waste water - 09241D/06
*BALS/ 24.07.79 BALSSE C B04 C03 D13 L02 (C04) *EP --23-161
Coagulated animal blood product - 08211D/06
*BASH= 20.06.78 BASHKIR PETRO RES C02 D22 E13 H01 (H03) *SU - 739-218
Antibacterial methyl di:hydro-pyran - 09406D/06
*BATU= 21.09.78 BATUMI FOOD IND INS D16 *SU -739-095
Prodn. of a nutritious, weakly alcoholic drink - 09326D/06
*BBEL= 18.11.77 BELO BELGIPROBNOSIN D16 *SU -739-087
Microorganisms culture unit - 09318D/06
BECI 13.02.76 BECKMAN INSTRUMENTS INC B04 D16 J04 S03 (S05) =DK 8002-681
Analysis of alpha and beta amylase in body fluids - 59735Y/34
BECI 13.02.76 BECKMAN INSTRUMENTS INC B04 D16 J04 S03 (S05) =DK 8002-682
Analysis of alpha and beta amylase in body fluids - 59735Y/34
BECI 13.02.76 BECKMAN INSTRUMENTS INC B04 D16 J04 S03 (S05) =DK 8002-683
Analysis of alpha and beta amylase in body fluids - 59735Y/34
*BECI 29.05.79 BECKMAN INSTRUMENTS INC B04 D16 J04 S03 *US 4246-084
Electrophoretic determn. of lactate dehydrogenase enzymes - 09555D/06
BEEC 09.12.76 BEECHAM GROUP LTD A96 D21 =US 4246-257
Cosmetic oil-in-water emulsion - 36589A/20
BEGH- 12.01.79 BEGHIN-SAY SA A96 D22 F07 =EP --22-792
Pads of laminated fabrics for mfr. of tampons, baby pants etc. - 29218C/17
BEGO- 11.02.77 BEGO BREMER GOLDSCH D21 =US 4246-086
Artificial tooth enamelling preparation unit - 60630A/34
BEHW 04.05.79 BEHRINGWERKE AG A96 B04 D16 =J5 5153-600
Dry substrate for gamma glutamyl transpeptidase determn. - 82993C/47
*BEKI 03.11.77 BELORUSS KIROV TECHN INS D16 *SU -739-089
Microorganisms culture unit - 09320D/06
*BELU 29.12.75 BELORUSSIAN LENIN UNIV D22 *SU -738-616
Conveyor and storer for biological media - 09086D/06
BENI- 13.07.79 BENIER BV D11 =NL 7905-494
Dough tray for proofer - 06192D/05
*BEPO 03.06.78 BELORUSSIAN POLY D16 *SU -739-104
Nutrient for developing microbial virulence determinants - 09335D/06
*BERT/ 09.04.79 BERTRAND B D16 E17 H09 (D15) *FR 2453-588
Methane generation as fuel gas from farm manure - 08226D/06
BESL/ 11.04.79 BESLER H C04 D16 E17 H09 (D15) =FR 2453-589
Methane produced from organic waste in fermenting vessel - 60520C/35
*BIOC= 16.03.76 BIOCHEM INST B05 C03 D13 (B01) *SU -738-585
Animal feed vitamin d-3 based supplement - 09080D/06
*BIOH- 22.10.79 BIO-HUMUS INC D15 E17 *US 4246-100
Compsn. for treatment of sewage - 09561D/06
*BIOR- 22.05.79 BIO RES CENT KK D15 *J5 5155-777
Anaerobic digestion of cellulose-contg. organic waste - 08889D/06
*BIOR- 22.05.79 BIO RES CENT KK D15 *J5 5155-778
Anaerobically treating cellulose-contg. organic waste - 08890D/06
*BIOS- 14.08.78 INTR BIOSINTEZE B05 D16 E16 *RO --73-588
L-Lysine producing Corynebacterium melassecula mutant - D/06
*BLAC- 01.11.78 BLACK BODY CORP D11 X27 *US 4245-613
Tunnel oven heated by IR panels - 09471D/06
*BOBB/ 11.07.79 BOBBIO F O D13 *BR 7904-392
Prepn. of amidated pectins - D/06
BOEF 14.06.78 SUDDEUTS ZUCKER-AG D17 E17 =US 4246-431
Xylitol recovery from residual syrups - 00106C/01
BOEF 20.06.79 BOEHRINGER MANNHEIM GMBH B04 D16 =DE 2924-875
Cholesterol oxidase prodn. by fermentation - 04169D/04
BONT/ 10.04.79 BONTEMPS R D21 =FR 2453-638
Frozen cosmetic blocks or sticks contg. e.g. pure foetal material - 77557C/44
BOSC 25.05.79 BOSCH R GMBH D14 =DK 8002-278
Liquid food metering device - 88514C/50
BOSC 25.05.79 BOSCH R GMBH D14 =GB 2053-373
Liquid food metering device - 88514C/50
BOWA/ 06.06.79 BOWALD S A96 D22 =SE 7904-938
Prosthesis for blood vessel having porous inner wall - 73500C/42
BRIM 13.07.79 BRISTOL MYERS CO B03 C02 D16 =DE 3026-425
Antimicrobial and antitumour tallysomycin derivs. - 05741D/05
BRIM 13.07.79 BRISTOL MYERS CO B03 C02 D16 =GB 2053-221
Antimicrobial and antitumour tallysomycin derivs. - 05741D/05
BRIM 13.07.79 BRISTOL MYERS CO B03 C02 D16 =NL 8003-970
Antimicrobial and antitumour tallysomycin derivs. - 05741D/05
BRIM 13.07.79 BRISTOL MYERS CO B03 C02 D16 =US 4246-400
Antimicrobial and antitumour tallysomycin derivs. - 05741D/05

BRIM

*BRIM 19.07.79 BRISTOL MYERS CO B04 C03 D13 *BE -884-399
Amphomycin animal feed additive - 07803D/06
BROD/ 27.06.79 BRODELIUS P A97 B04 D16 =WP 8100-113
Catalyst for prodn. or transformation of natural prods. - 06110D/05
*BRPE 29.03.76 BP NUTRITION UK LTD C03 D13 *GB 1583-751
Ruminant fodder prodn. from lignocellulose material - 08274D/06
BRPE 26.06.79 BRITISH PETROLEUM LTD A97 D15 H03 (A18) =BR 8003-981
Crosslinking functionalised polymer in presence of e.g. oil - 08175D/06
*BRPE 26.06.79 BRITISH PETROLEUM LTD A97 D15 H03 (A18) *EP --23-084
Crosslinking functionalised polymer in presence of e.g. oil - 08175D/06
*BUDD/ 18.12.78 BUDDEMEYER E U D16 K08 S03 *US 4246-352
Apparatus for measuring biological activity of cells - 09669D/06

CALI- 07.10.76 CANADIAN LIQUID AIR D15 =GB 1584-065
Aq. effluent treatment in combined biological reactor and clarifier - 26959A/15
CAMP- 29.06.77 CAMPBELL SOUP CO D13 (D12) #CA 1092-428
Texturising vegetable protein using steam injection - 55773Y/31
CAMP- 30.06.77 CAMPBELL SOUP CO D12 #CA 1092-427
Textured protein pieces prodn. - 57439Y/32
*CAMP- 31.10.77 CAMPBELL SOUP CO D13 *US 4245-552
Apparatus for texturising proteins - 09463D/06
*CAMP- 22.01.79 CAMPBELL SOUP CO D12 *US 4245-372
Severing tail of poultry carcass suspended from conveyor - 09442D/06
CESK 21.06.79 CESKOSLOVENSKA AKAD D21 E16 =GB 2052-977
Hydroxy-alkylated amine gp.-contg. fatty acid ester derivs. - 05942D/05
*CETU- 29.05.79 CETUS CORP D17 E16 (D16) *US 4246-347
Fructose prodn. from glucose - 09665D/06
CEVY- 25.04.77 CESKE VYSOKE & TECH D13 #CA 1092-659
Heat treatment of granular fruit seeds - 79379A/44
*CHEC/ 17.07.75 CHECHURA A A D16 J02 *SU -738-649
Microbiological e.g. yeast nutrient aerator - 09108D/06
CHEM 04.12.75 CHEM WERKE HULS AG A97 D25 E12 (E17 E34) =DS 2554-592
Washing textiles in automatic washing machine - 43765Y/25
CHEM- 23.02.76 CHEMED CORP A97 D25 E34 (A91) =CA 1092-476
Dishwashing machine detergent in slurry form - 73202A/41
CHEM- 27.05.76 CHEMITHON CORP D25 E19 J04 =GB 1584-001
Sulphonation process employing a venturi reactor - 90454Y/51
*CHIM- 24.01.76 CHIMICA COOP A96 D21 *RO --73-669
Water-repellent water- and acid-protective aq. skin cream - D/06
CIBA 21.05.76 CIBA GEIGY AG B05 C03 D22 E11 =RO --73-647
Substd. (1)-amino-methane-phosphonous acid derivs. - 82995Y/47
CIBA 30.12.76 CIBA GEIGY AG B05 C03 D25 E16 (D21 E14) =DS 2758-013
Improving the surface tension property of fluoro surfactants - 47748A/27
CILA 21.05.79 CILAG CHEMIE AG B03 C02 D22 =J5 5154-958
1-Alkyl-2-substd.-pyrazolium salts - 45019C/25
CINO/ 15.12.78 CINOTTI W D21 =US 4245-988
Forming denture model from impression member - 49736C/28
*CLER- 14.03.79 CLEREN SA D14 T05 (T06) *FR 2454-140
Preselector control for ingredient weights in cattle feed - 08267D/06
COLG 29.12.75 COLGATE PALMOLIVE CO D22 =CA 1092-331
Absorbent pad for disposable napkins, sanitary towels etc. - 31016Y/18
COLG 09.08.76 COLGATE PALMOLIVE CO D22 F04 =CA 1092-332
Babys disposable napkin etc. contg. hydrocolloidal material - 90086Y/51
COLG 29.09.76 COLGATE PALMOLIVE CO A97 D25 =PT --67-072
Bottled detergent prod. with flowable detergent powder - 08409A/05
COLG 18.07.77 COLGATE PALMOLIVE CO D22 E14 =GB 1583-765
Phenol liquid disinfectant compsn. - 84151A/47
COLG 05.07.79 COLGATE PALMOLIVE CO A96 D21 =GB 2052-984
High viscosity dentifrice compsn. contains anionic polyelectrolyte - 80741C/46
COLG 05.07.79 COLGATE PALMOLIVE CO A96 D21 =PT --71-491
High viscosity dentifrice compsn. contains anionic polyelectrolyte - 80741C/46
*COLL/ 12.04.79 COLLET J E M D11 *FR 2454-070
thermal treatment chamber for prod. on trolley, e.g. dough pieces - 08265D/06
*COOL- 13.07.79 COOLBOX VERTRIEB D15 E36 J03 S03 *DE 2928-324
Determn. of ozone in water - 07911D/06
COPE- 23.11.77 COPEF D15 J01 #GB 1583-990
Separator for settling suspended solids in liquids - 42515B/23
*CORG 05.09.78 CORNING GLASS WORKS B04 D16 *US 4246-349
Stabilising immobilised bacteria - 09667D/06
CORO/ 19.06.78 CORONEOS J H D12 =US 4245-373
Chopped beef discs possessing high cohesion for roasting - 00173C/01
CORP 19.03.76 CPC INTERNATIONAL INC D16 (D17) =RO --73-359
Stabilised glucose isomerase concentrates - 66910Y/38
*CORP 25.09.78 CPC INTERNATIONAL INC D23 *US 4246-184
Extn. of oil from vegetable material - 09598D/06
*CRIH/ 15.09.78 CRIHAN I G A97 D22 K08 *US 4246-295
Sterilisation and reinforcement of art objects - 09647D/06

CSIR 03.05.76 COMMONWEALTH SCIENT ORG D15 =GB 1583-881
Purification and clarification of sewage - 84220Y/47
CSIR 15.03.79 COMMONWEALTH SCIENT ORG B01 C01 D16 K08 S05) =J5 5153-800
Steroidal alkyl-phosphono-thioate or phosphate protein pr 72017C/41
*CSMA= 03.05.77 CONS MATER IND SAFE D15 E31 *SU -739-007
Removing hexa:valent chromium cpds. from aq. waste - 09243D/0
*CSMA= 17.10.78 CONS MATER STRUCT D16 L02 *SU -739-023
Binder for structural units extrusion casting - 09259D/06
CUTT 15.05.79 CUTTER LABS B04 D16 =J5 5153-723
Cultivating influenza virus for vaccine prodn. - 86753C/49

*DAGE= 06.02.76 DAGESTAN FOOD IND D16 T06 X25 *SU -739-091
Continuous fortified wine prodn. - 09322D/06
DAIB/ 28.03.77 DAIBERL K D21 =CA 1092-396
Mould lining for dental prosthesis - 51679A/29
DAIL 19.07.77 DAICEL CHEM INDS LTD D18 E33 =US 4246-009
Filter for tobacco smoke - 20245B/11
*DAIR= 24.11.77 DIARY IND RES INST D14 S03 X25 *SU -737-831
Disperse state study in milk - 09056D/06
*DAIR= 30.12.77 DAIRY IND RES INST D13 S03 (D15) *SU -739-406
Determination of small amts. of fats in milk prodn. aq. wa 09416D/06
*DAIS- 21.05.79 DAISHO KAGAKU KOGYO A88 D15 J01 *J5 5155-705
Agent for cleaning tubular reverse osmosis membrane - 08856D/06
*DALT= 16.11.77 DALTEKHRYBPROM D12 *SU -738-577
Mollusc processing machine - 09072D/06
DEBA- 17.08.78 DEBAG DEUT BACKOFEN D11 =DS 2857-125
Water vapour generator for baking oven - 18720C/11
DECT 30.07.76 DECO INDUSTRIES INC A35 D15 H09 #RO --73-499
Hydrocarbon prods mfr - 48054X/26
*DEGM 11.04.79 DEGREMONT SA D15 *FR 2453-831
Sludge extn. from decanting tank with rotary bridge - 08245D/06
*DENT- 09.07.79 DENTAL ESSENTIALS A96 D22 *WP 8100-047
Dental articulator with removable mounting plate - 09711D/06
*DIAS 02.07.79 DIAMOND SHAMROCK CORP D13 *EP --22-947
Prodn. of acid cheese curd - 08099D/06
*DNII 22.05.79 KAWAMURA INST CHEM RES B05 D23 E19 *J5 5154-94
Purificn. of terpene unsatd. alcohol ester(s) - 08735D/06
*DNII 22.05.79 DAINIPPON INK INST CHEM B05 D23 E19 *J5 5154-94
Redn. of unsatd. terpene formate(s) - 08736D/06
*DNIN 22.05.79 DAINIPPONINK CHEM KK B05 D23 E19 *J5 5154-941
Purificn. of terpene unsatd. alcohol ester(s) - 08735D/06
*DNIN 22.05.79 DAINIPPON INK CHEM KK B05 D23 E19 *J5 5154-942
Redn. of unsatd. terpene formate(s) - 08736D/06
*DOCT= 30.05.78 DOCTOR RETRAINING A89 B04 D16 J04 (S03 S0
*SU -740-234
NADP dependent iso-citrate dehydrogenase fraction activity - 09430
*DOWA 23.05.79 DOWA MINING CO LTD D15 *J5 5155-790
Neutralisation of acidic effluent with granular limestone - 08894D/0
*DOWC 01.03.79 DOW CHEMICAL CO A96 B04 D16 *US 4246-350
Immobilising proteins on di:vinylbenzene-styrene copolymer re 09668D/06
DOWO 29.06.79 DOW CORNING CORP D15 J01 =GB 2053-024
Reverse osmosis cell for desalination - 02246D/03
*DRED 16.07.79 VEB ARZNEIMITTEL DRESDEN B02 D16 *EP --22-973
Ergosine alkaloid prepn. - 08113D/06
*DUBR/ 21.11.77 DUBROVIN L V D14 *SU -738-580
Glazing equipment for frozen food blocks - 09075D/06
DUPO 13.06.75 DU PONT DE NEMOURS CO D13 (D16) =CA 1092-42
Mycelium conversion to human food - 00324Y/01
*DVOS/ 06.07.79 DE VOS M J A96 D21 *NL 7905-285
Floating tablet of soap for the bath - 08998D/06

EAST 06.12.76 EASTMAN KODAK CO A23 D18 F01 =CA 1092-748
Non-crystalline polyester fibres prodn. from terephthalic c 42517A/24
*EBAI 23.05.79 EBARA INFILCO KK D15 *J5 5155-798
Treatment of organic waste water e.g. night soil - 08897D/06
*EFIS= 17.11.77 EST FISH FARM COLL D12 *SU -738-905
Press to extract juices from spleen(s) - 09218D/06
EGYE 31.03.76 EGYT GYOGYSZERVEGYESZETI A11 B04 D13 E12 (A97 B03) =SU -739-077
Metal oligo- and poly-galacturonate complexes - 75406Y/42
*ELEC 10.07.79 ELECTRICITE DE FRANCE D15 K06 S03 (S02) *DE 3024-
Water quality measuring device - 08010D/06
*ELEX 12.07.79 ELECTROLUX AB D22 *EP --23-196
Appts. for disinfecting articles in hospital - 08225D/06
ELIL 24.05.76 ELI LILLY & CO B04 C03 D13 (D16) =RO --73-411
Antibiotic mixt. A-35512 and individual factors - 82966Y/47
*ELIL 23.05.79 ELI LILLY & CO B04 D16 *J5 5154-994
Antibiotics A-6888C and A-6888X - D/06
*ENEA/ 09.07.79 ENEA L D15 J01 *DE 2927-701
Joint for ultrafiltration tubes - 07882D/06

GS/ 07.06.79 ENGSTROM O D12 *SE 7904-951
hin plate for collecting fish scales - D/06
E- 01.08.79 ENI ENTE NAZ IDROCA A96 B04 D22 (D16) *BE -884-301
rodn. of blood-compatible materials - 07781D/06
E 24.12.75 ESPE FAB PHARM PRAPARATE A60 D21 E14 (A14 A96) =DS
8-538
Activator for redox polymerisation, esp. of dental fillter compsn. -
47337Y/27
E 18.07.79 ESPE FAB PHARM PRAPARATE D21 L01 (D22) *EP --23-013
Calcium aluminium fluoro:silicate glass powder - 08137D/06
E= 11.07.77 ESTER OILS CULTURES D23 *SU -739-085
Countercurrent essential oil extractor - 09316D/06
PE= 05.06.79 EXP VETERINARY INST B04 C03 D16 *SE 7904-897
Veterinary vaccine for treating trichophyton infections - D/06
SS/ 10.04.79 EYSSERIC D D23 J01 *FR 2453-893
Installation for distilling essential oils from aromatic plants - 08250D/06

PE- 31.01.80 FAPE DOMENICO D & C D14 *PT --71-545
Crusher for e.g. olives - D/06
RB 12.08.71 BAYER AG A96 D21 G02 =DS 2140-404
Dental lacquers - 12909U/10
RB 01.03.72 BAYER AG B04 D16 =RO --73-776
Saccharase inhibitors - 54019U/37
RB 29.11.75 BAYER AG D15 =US 4246-104
Hydrolysis of effluent under pressure - 39792Y/23
RB 14.05.76 BAYER AG D15 E11 M14 =US 4246-103
Propane diphosphonic and diphosphinic acid water conditioners -
83192Y/47
RB 19.03.77 BAYER AG B03 C02 D22 =GB 1584-138
Derivs. of di:amino-glycosyl-di:amino-cyclitol antibiotics - 67081A/38
RB 03.08.78 BAYER AG A97 D18 (A26) =US 4245-996
Condensation product for tanning leather - 91194B/51
RB 03.08.78 BAYER AG B03 D16 E13 =US 4246-345
6-Amino-6-desoxy-L-sorbose prodn. - 13241C/08
RB 21.05.79 BAYER AG A25 D15 =J5 5155-014
Polyurethane foam prodn. contg. reactive filler - 86749C/49
RB 21.05.79 BAYER AG A41 C04 D15 E14 =J5 5155-706
Accelerating sedimentation in waste water treatment - 86751C/49
RB 26.05.79 BAYER AG C02 D16 *EP --22-910
Fermentative prodn. of herbicidal piperidine deriv. - 08086D/06
RB 27.06.79 BAYER AG B02 C02 D13 (D22) =GB 2053-216
Antibacterial and beta-lactamase inhibitor penicillanic acid derivs. -
05840D/05
RB 04.07.79 BAYER AG A60 B02 C02 D22 *GB 2053-220
5,6-Di:substd.-penicillanic acid 1,1-di:oxide derivs. - 08334D/06
RB 06.07.79 BAYER AG B02 C02 D22 *DE 2927-462
Antibacterial cephalosporin 1-oxide and 1,1 di:oxide derivs. - 07871D/06
RB 07.07.79 BAYER AG D15 E36 J04 S03 (X25) *DE 2927-615
Detecting small silica quantities in water - 07873D/06
RB 11.07.79 BAYER AG D15 E37 =DE 2927-911
Reducing chemical oxygen demand in waste water - 06149D/05
RB 11.07.79 BAYER AG D15 E37 =DE 2927-912
Reducing chemical oxygen demand in waste water - 06150D/05
RB 12.07.79 BAYER AG C02 D16 *EP --22-964
Nikkomycin antibiotics - 08107D/06
RB 12.07.79 BAYER AG C02 D16 =PT --71-483
Nikkomycin antibiotics - 08107D/06
RE= 18.07.77 FAR EAST POLY D12 T06 X25 *SU -738-574
Fish dressing machine conveyor charging appts. - 09069D/06
RH 07.12.72 HOECHST AG D25 =DS 2259-830
Detergent and clear rinsing agent combination - 45553V/25
RH 04.09.75 HOECHST AG D25 E13 F06 =SE 8006-264
Softening agent for textiles, esp. in washing machines - 16467Y/10
RH 23.05.79 HOECHST AG A97 C04 D15 E36 =DK 8002-245
Waste-water sludge dewatering - 88489C/50
RM 12.04.79 FARMITAL ERBA C SPA D22 F03 =FR 2453-920
Stretch bandage mfr. - 79122C/45
RM- 11.04.79 FARMATIS SPA D22 E14 #FR 2453-843
Antibacterial 6-iso-bornyl-3,4-xylenol prepn. - 84723B/47
RM= 23.07.79 FARM ANIMALS REARIN D13 S02 T06 X25 *DE 2929-823
Pasteuriser deposit determn. - 07958D/06
R/ 21.09.79 FEILER H D13 *BE -885-314
Preserving perishable prods. esp. foods - 07832D/06
RM- 05.07.77 FERMENTA AB A96 B04 D16 #US 4246-346
Immobilised microorganisms activated with peptone and glucose -
12075A/02
R- 01.06.79 FERROKEMIA SZOVETKE A96 B03 D21 E13 =SE 8000-131
Compsn. used as cosmetic prod. e.g. shampoo, ointment - 56909C/33
A 28.06.77 FIRMENICH SA D23 E13 *GB 2053-201
Methyl substd. butenyl furan - 08330D/06
A 26.06.79 FIRMENICH SA A97 D22 E19 (A18) *WP 8100-051
Perfume releasing articles - 09714D/06
- 03.05.79 FISKERITECH FORSKNI D12 =J5 5153-551
Removal of fat, intestines etc. from fish - 84727C/48

*FORE- 22.02.78 INTR FOREST TRANSP C03 D22 E16 F09 (E36) *RO --73-695
Protecting wood against blueness and mould - D/06
FORM- 02.11.77 FORMAX INC A88 D14 =CA 1092-384
Frost removal appts. for cryogenic freezing tunnel - 83964B/46
*FORS- 19.07.79 FORSCH BIOMEDIZINIS B04 D22 *DE 2929-278
Deep freezing of cell suspensions - 07945D/06
*FRAG= 17.02.78 FRAGRANT MATER RES D23 E15 *SU -739-055
Methyl-ionone isomer mixt. - 09290D/06
*FRAN/ 26.06.79 FRANDSEN A S D15 *WP 8100-101
Biological purification of waste water - 09728D/06
FRAU 00.00.77 FRAUNHOFER-GES FORD ANGE A88 D15 J01 (A26)
=DE 2925-969
Silicic acid hetero-poly condensates - 04350D/04
FREU/ 01.06.79 FREUDENBERG C A96 D22 F03 (A17 A25 A60) =GB
2053-302
Nonwoven web of single and groups of polyolefin filaments - 56925C/33
FRRR 26.10.72 FERRERO P & CIA SPA D13 =RO --73-533
Chocolate liqueur centres prodn - 17375V/10
FRRR 20.07.79 FERRERO OHG D11 =EP --22-901
Smooth-surfaced wafer prodn. - 05896D/05
*FUJI- 17.05.79 FUJINAGA SEIYAKU KK D21 *J5 5153-710
Non-irritant skin cosmetic - 08484D/06
*FUJI/ 07.07.79 FUJISHIMA D A92 D13 J04 *WP 8100-092
Method of supplying gas absorbent powder - 09727D/06
*FUKO 17.05.79 FUJI OIL KK D13 *J5 5153-561
Ice cream contg. medium m.pt. fraction of palm oil - 08441D/06
FURU/ 12.02.76 FURUKAWA K D15 =J5 2098-356
Waste water denitrating - 08978D/06
*FURU/ 12.02.76 FURUKAWA K D15 *J8 1001-158
Waste water denitrating - 08978D/06

GAGG- 11.06.79 GAGGENAU-W HAUS LUFT D11 =GB 2053-458
Air cooled flush fitting backing oven - 00069D/01
GCDE- 19.02.76 GC DENTAL IND CORP D21 M26 =J8 1001-377
Palladium-contg. dental amalgam - 71238Y/40
GENE- 05.07.79 GENETECH INC B04 D16 =PT --71-487
Cloning vector contg. semi-synthetic gene - 03727D/04
GENE- 05.07.79 GENENTECH INC B04 D16 =WP 8100-114
Cloning vector contg. semi-synthetic gene - 03727D/04
GENO 28.06.72 GENERAL FOODS CORP D23 E13 =J8 1001-063
Imparting pineapple flavour to foodstuffs - 30641V/16
GENO 02.01.73 GENERAL FOODS CORP D13 =J8 1001-062
Freshly popped popcorn flavourant - 74263V/42
*GENO 26.03.79 GENERAL FOODS CORP D13 *US 4246-291
Decaffeination of aq. coffee extract - 09644D/06
GENO 12.04.79 GENERAL FOODS CORP D13 E14 =FR 2453-608
Chewing gum having sweetness retention on prolonged storage -
58788C/34
GENO 12.04.79 GENERAL FOODS CORP D13 E14 =US 4246-286
Chewing gum having sweetness retention on prolonged storage -
58788C/34
*GFOO= 02.12.77 GEOR FOOD IND RES D11 *SU -738-957
Dough blanks orienter - 09225D/06
GLAX 19.07.79 GLAXO GROUP LTD B02 D16 =BE -884-385
Antibiotic des:acetyl-cephalosporin C prodn. - 08062D/06
*GLAX 19.07.79 GLAXO LTD B02 D16 *DE 3027-380
Antibiotic des:acetyl-cephalosporin C prodn. - 08062D/06
GLYC- 21.05.79 GLYCO CHEM INC C03 D22 E13 H07 (E12) #J5 5154-906
Antimicrobial compsn. for aq. systems - 80779B/44
*GORL/ 25.01.78 GORLOVSKII D M A41 D15 E16 *SU -739-002
Sepn. of urea from prodn. aq. waste - 09238D/06
GOSE- 19.07.77 GOSEI KAGAKU INST LTD D18 E33 =US 4246-009
Filter for tobacco smoke - 20245B/11
*GOSP- 19.08.77 INST GOSPODARIREA D15 E36 J04 S03 *RO --74-001
Cyanide ion loading of water - D/06
*GOSP- 23.11.77 INST GOSPODARIREA D15 E36 J04 S03 *RO --73-510
Potentiometric chlorine ion determination in water - D/06
*GREA/ 07.03.78 GREANEY E J D13 *US 4245-973
Punch for cutting ice-cream slabs - 09509D/06
GREC 30.07.73 GREEN CROSS CORP B04 D16 =J5 0035-308
Mfg. prepn. for treating disease due to Pseudomonas aeruginosa -
08985D/06
*GREC 30.07.73 GREEN CROSS CORP B04 D16 *J8 1001-289
Mfg. prepn. for treating disease due to Pseudomonas aeruginosa -
08985D/06
*GREC 17.05.79 GREEN CROSS CORP B04 D16 *J5 5153-592
Plasmin free plasminogen prepn. from human serum - 08445D/06
*GRUN/ 14.07.79 GRUNER W D15 *DE 2928-540
Sewage treatment tank - 07922D/06
*GSAM= 04.01.79 GEOR SAMTREST WINE D16 *SU -739-094
Red wine production unit - 09325D/06

HAAS/ 25.03.77 HAAS F D11 =US 4246-290
Cream wafer stacking machine - 71078A/40
HAAS/ 12.04.79 HAAS F D11 =FR 2453-604
Waffle block cutting machine - 79107C/45

HAEM/

*HAEM= 20.06.73 HAEMATOLOGY BLOOD B05 D22 *SU -740 251
Compsn. for treatment of large wound and burns - 09436D/06
*HAMJ- 06.07.79 HAMJERN AS D12 *WP 8100-040
Skinning sheep carcass with rotating pulling drum - 09710D/06
*HASE 23.05.79 HASEGAWA KK D23 E17 *J5 5154-940
2,3-Butane:diol ester(s) perfume (modifying) agent(s) - 08734D/06
HAYA/ 01.05.70 HAYASHI T D11 =DS 2121-577
Automatic baking system - 74203S/47
HENK 13.04.72 HENKEL KG AUF AKTIEN C04 D25 E11 M11 (D15) =DS 2217-692
Phosphonic acid derivs - 65752U/44
HENK 09.12.78 HENKEL KG AUF AKTIEN A96 D22 =DE 2857-751
Sanitary pad - 43602C/25
HENK 25.06.79 HENKEL KG AUF AKTIEN D23 E15 =BR 8003-937
Acetyl-tri:methyl-bi:cyclo-nonene isomer mixt. perfume - 04187D/04
*HENK 20.07.79 HENKEL KG AUF AKTIEN A97 D25 E34 *EP --22-998
Low-foaming detergent prepn. - 08130D/06
HERC 06.06.79 HERCULES INC A11 D25 (A97) =GB 2053-225
Cellulose ether with long-chain hydrocarbon substit. - 01233D/02
*HERT- 16.07.79 HERTA K SCHWEISF KG D13 (D12) *DE 2928-680
Flavouring and aromatising food esp. meat and sausages - 07933D/06
HIEJ 27.09.76 HITACHI PLANT ENG CONST D15 =J8 1001-151
Treating waste water contg. fluorine - 37546A/21
HIEJ 27.09.76 HITACHI PLANT ENG CONST D15 =J8 1001-152
Material for contact-removal of fluorine from waste water - 37539A/21
*HIER/ 19.07.79 HIERONYMI K D15 *DE 2929-139
Cyclonic separator for water streams - 07942D/06
HILB 09.07.79 HILLS BROS COFFEE INC D13 #NL 7905-357
Coffee bean roasting process - 73554B/40
*HITA 23.05.79 HITACHI KK D15 E36 *J5 5155-785
Treating borofluoride-contg. waste water - 08891D/06
*HITF 22.05.79 HITACHI SHIPBLD ENGG KK D15 *J5 5155-713
Device for removing solids from slurry from rivers, harbours, etc. - 08861D/06
*HITF 22.05.79 HITACHI SHIPBLD ENGG KK D15 *J5 5155-714
Appts. for removing solids from slurry drain from rivers seas etc. - 08862D/06
*HITK 20.07.79 HITACHI METAL KK D15 *DE 2929-486
Two/stage slurry dewatering system - 07949D/06
HKSO- 01.12.70 HONG KONG SOYA BEAN D13 =DS 2156-585
Cheese product - 39733T/25
HOEL- 23.07.79 HOELZLE & CHELIUS K A88 D15 E36 (D16 D22) =DE 2929-813
Disinfecting flowing media with diffusible gas generating substance - 08152D/06
*HOEL- 23.07.79 HOELZLE & CHELIUS K A88 D15 E36 (D16 D22) *EP --23-040
Disinfecting flowing media with diffusible gas generating substance - 08152D/06
HOFF 22.05.79 HOFFMANN-LA ROCHE AG B05 D16 =DK 8002-228
Tetra:cyclic antibacterial and antitumour agents - 86784C/49
HOKA 03.01.75 HOKKAIDO SUGAR KK D16 =J8 1001-072
Alpha galactosidase prodn. - 41760X/22
HOKK- 00.00.77 HOKKAIDO TOGYO KK D16 S03 =J8 1001-073
Alpha-galactosidase prepn. - 43220A/24
*HOLZ/ 26.06.79 HOLZNER G A97 D22 E19 (A18) *WP 8100-051
Perfume releasing articles - 09714D/06
HUBN/ 03.06.75 HUBNER M D12 =DS 2524-628
Meat pickling machine conveyor - 00133Y/01
*HURK/ 06.07.79 HURKMANS A D11 *NL 7905-305
Dispenser for accurate quantities esp. of dough - 08999D/06
HYDR- 17.10.78 HYDROTECHNIC CORP D15 E37 #EP --22-770
Treatment of sewage prior to sea discharge - 91346A/50

IDEK 17.09.76 IDEMITSU KOSAN KK A88 D15 J01 (A14) =DS 2741-486
Copolymer membranes for oil-water sepn. - 23623A/13
*INCH- 31.03.76 INST IND CHIM ALIM A96 B04 D16 *RO --73-783
Immobilising enzymatically active microorganism cells - D/06
*INFL 27.01.78 INT FLAVORS & FRAGR INC B07 D13 E15 (B05) *US 4246-287
Augmenting or enhancing the lemon flavour of foodstuffs or chewing gum - 09641D/06
INMR 04.06.76 INST MERIEUX A97 B04 C03 D16 =GB 1583-889
Immunostimulant compsn. prepn. - 86595Y/49
*INOL- 14.02.77 INOLEX CORP D21 E19 (D25) *US 4246-131
Water free, low irritant, liq. surfactant compsn. - 09578D/06
*INOZ 24.05.79 INOUE JAPAX RES INC D13 E36 G04 (D22) *J5 5154-909
Antifungal compsn. for protecting foodstuffs - 08714D/06
*INSC 13.01.78 INST CERC CHIMICO-FARMAC D23 E17 *RO --73-405
Methyl-heptenone perfume and perfume intermediate prepn. - D/06
*INSC 14.08.78 INST CERC CHIMICO-FARMAC B05 D16 E16 *RO --73-588
L-Lysine producing Corynebacterium melassecula mutant - D/06
INSP 29.06.79 INST PASTEUR A96 B04 D16 K08 (S03) =GB 2053-233
High activity vaccinating antigen fractions - 02329D/03
INSS 10.04.79 SCHWEIZERISCHES SER B04 C03 D13 =FR 2453-651
Anti-rabies vaccine prodn. using heads only of bird embryos - 75328C/43
*INTM 11.07.79 INT MINERALS & CHEM CORP B02 C01 D13 *DE 3026-408
Polyether antibiotic e.g. lasalocid zinc complexes - 08053D/06

IOWA 09.07.79 IOWA STATE UNIV RES INC B04 C03 D16 =GB 2052-983
Infectious bovine rhinotracheitis vaccine - 09008D/06
*IOWA 09.07.79 IOWA STATE UNIV RES INC B04 C03 D16 *NL 8003-889
Infectious bovine rhinotracheitis vaccine - 09008D/06
*ISHI- 23.05.79 ISHIGAKI KIKO KK D15 *J5 5155-715
Filter cloth for sludge filter press - 08863D/06
*IVAN= 31.10.78 IVAN MEDICAL INST B04 D16 *SU -739-102
Differentiation of mobile enterococci from Streptococcus faecium 09333D/06

*JAPG 23.05.79 NIPPON ZEON KK A88 D15 J01 *J5 5155-704
Semipermeable membrane hollow fibre - 08855D/06
JAPM 25.04.75 JAPAN MONOPOLY CORP D18 E17 =J8 1001-066
Perfume compsn. used to improve tobacco flavour - 95140X/51
JAPM 22.05.75 JAPAN MONOPOLY CORP D18 E17 =J8 1001-067
Perfume for tobacco to improve taste - 02973Y/02
JAPM 11.11.75 JAPAN MONOPOLY CORP D18 E13 =J8 1001-068
Improving taste and flavour of cigarettes - 46202Y/26
JOHJ 28.07.76 JOHNSON & JOHNSON A96 B05 D21 G03 (A81) =CA 1092-466
Adhesive tape coated with tretinoin - 17349A/09
JOHS 22.06.79 JOHNSON S C & SONS INC D25 E19 =BR 8003-864
Concentrate compsns. for extraction cleaning of carpets - 02527D/03

KALI 08.06.79 KALI-CHEMIE PHARMA B04 D16 =NO 8001-690
Pancreatin pellets prodn. - 84516C/48
KAOS 20.08.74 KAO SOAP KK D25 E34 =DS 2536-283
Sodium percarbonate or perborate having high specific vol. - 19119X/11
KAOS 12.04.79 KAO SOAP KK D22 =FR 2453-637
Tampon with sliding applicator - 60518C/35
*KAOS 16.05.79 KAO SOAP KK D25 *J5 5152-799
Alkaline detergent compsn. for marine prods - 08400D/06
*KARH 10.04.79 KARLHOLMS AB D15 F09 *FR 2453-935
Water recycle system for pulp processing - 08256D/06
*KATA- 02.07.79 KATAYAMA CHEM WORKS D22 E16 F09 H08 (D15) *DE 3024-911
Antimicrobial agents for industrial use - 08015D/06
KATA- 02.07.79 KATAYAMA CHEM WORKS D22 E16 F09 H08 (D15) =GB 2052-989
Antimicrobial agents for industrial use - 08015D/06
*KATS/ 24.05.79 KATSUKAWA H D15 *J5 5155-786
Decolourising dyeing effluent - 08892D/06
KEND 05.12.79 KENDALL CO A14 D22 G02 (A82 A96) =PT --71-480
Clear mixts. of PVP and acrylic copolymers - 82662C/47
*KERN/ 07.07.79 KERNER K D12 *DE 2927-507
Animal stunning gun - 07872D/06
*KFOO= 02.12.77 KAZA FOOD DES BUR D13 *SU -738-589
Cucumber calibrator - 09084D/06
*KIBO- 13.07.79 KIBON IND ALIMEN SA D14 *BR 7904-461
Ice cream tin can cutter - D/06
*KIFO= 19.12.77 KIEV FOOD IND TECHN D11 X25 *SU -738-572
Bread baking oven - 09067D/06
KIRI 17.05.77 KIRIN BREWERY KK D22 E14 G02 =J5 3141-600
Mould resistant labels - 08959D/06
*KIRI 17.05.77 KIRIN BREWERY KK D22 E14 G02 *J8 1000-790
Mould resistant labels - 08959D/06
KLEI- 15.12.78 KLEIN A KG D15 J01 =DS 2854-168
Endless belt filter for sludge dewater - 45271C/26
*KOKE 23.05.79 KOKEN KK A96 B04 D22 *J5 5155-643
Bone Prosthesis contains collagen deriv. - 08851D/06
KOLL/ 30.06.79 KOLLROSS G D12 =WP 8100-041
Sausage skin concertina closure - 05850D/05
*KOMO/ 06.01.78 KOMOGORTSEV B V D15 E36 *SU -738-995
Prodn. of activated silicic acid - 09231D/06
*KOMP= 08.12.77 KOMPLEKS POULTRY D12 *SU -738-573
Feather plucker for poultry carcasses - 09068D/06
*KOMP= 10.10.78 KOMPLEKS POULTRY D13 *SU -738-581
Dried egg white prodn. - 09076D/06
*KONN 17.07.79 GIST-BROCADES NV B04 C03 D16 *PT --71-537
Prepn. of polyvalent virus vaccine - D/06
*KOUI/ 28.06.79 YON KOUI A D21 *WP 8100-049
Capillary hair lotion contg. plant extracts - 09712D/06
KOWA 16.04.79 KOWA KK B02 D16 =DE 3014-434
Aza:bi:cycloheptane-carboxylic acid derivs. - 80122C/45
KULZ 02.06.77 KULZER & CO GMBH A96 D22 L02 (A14) =GB 1583-937
Material for prepn. of bone cement - 72816A/41
KUMA/ 08.10.76 KUMAKI I D15 =J8 1001-153
Removing fluorine ion from aq. soln. e.g. factory effluents - 41082A/23
KURE 22.07.76 KUREHA CHEM IND KK B04 D16 =SU -740-156
Prodn. of polysaccharide with antitumour activity - 06341A/04
KURK 19.06.79 KURITA WATER IND KK A97 D15 G04 =BR 8003-827
Boiler scale removal without stopping plant operation - 05927D/05
*KURO/ 24.05.79 KUROSAWA Y D15 *J5 5155-707
Domestic waste water filter - 08857D/06

GR= 22.01.79 LATV AGRIC ACAD C03 D13 *SU -738-584
Preservation of fodder grains - 09079D/06
RS/ 21.09.78 LARSON J M D13 *US 4246-293
Snack food based on whole potatoes - 09645D/06
CO= 15.06.78 LENGD COMMUNAL RES D15 *SU -738-638
General purpose water filtration - 09097D/06
N= 08.12.78 LENGD ENG-CONS INST D15 *SU -740-252
Water purificn. installation treatment after use - 09437D/06
MB/ 31.01.78 LEMBKE A B06 D21 (D16) =US 4246-256
Anticariogenic foods and pharmaceuticals - 58294B/32
NI 21.03.77 LENINGRAD LENSOVET TECH D16 *SU -739-088
Microorganisms culture unit - 09319D/06
/O- 09.04.79 LEVOR INC D15 G04 X15 =FR 2453-973
Ambient energy recovery from water and water purification - 79104C/45
WI/ 11.07.79 LEWIS V M D13 =DE 3025-594
Dehydration of vegetables to desired water content and activity - 80748C/46
WI/ 11.07.79 LEWIS V M D13 =NL 8004-020
Dehydration of vegetables to desired water content and activity - 80748C/46
ZH 18.07.78 LENINGRAD ZHDANOV UNIV D15 E33 J01 *SU -738-651
Removal of calcium, strontium or barium salts for aq. effluent - 09110D/06
E- 18.06.79 LIFE SAVERS INC A97 D13 =GB 2052-945
Calorie-free chewing gun compsn. - 03956D/04
E- 21.06.79 LIFE SAVERS INC D13 =GB 2052-946
Low-sugar chewing gum compsns. - 02290D/03
E- 15.07.80 LIFE SAVERS INC A97 B07 D13 *BE -884-317
Articles with sugar-free coating - 07786D/06
OY 18.05.79 LION DENTIFRICE KK D21 E33 *J5 5153-708
Dentifrice compsn. contg. aluminium hydroxide as abrasive - 08482D/06
OY 18.05.79 LION DENTIFRICE KK D21 E34 *J5 5153-709
Aq. oral hygiene compsn. - 08483D/06
PP/ 21.11.79 LIPP X D16 (D15) *DS 2946-884
Bio-gas tank bell - 08067D/06
BP 31.05.78 LKB PRODUKTER AB B02 D16 J04 S03 (S05) =US 4246-340
Adenine tri:phosphate determn. by bio-luminescence - 71832B/40
MS 26.07.79 LAB OM SA B04 D16 =PT --71-612
Immuno-therapeutic E. coli lysates - 86397C/49
MM 15.05.78 LUMMUS CO A41 D15 E16 (A35) =US 4246-417
Treatment of aq. effluent from prodn. of nitrile s) by ammoxidation - 86187B/48

ACG/ 05.05.76 MACGREGOR D C A96 D22 *CA 1092-303
Flexible vascular graft - 07838D/06
AGI- 30.04.79 MAGIC CHEF INC D13 X27 *US 4245-615
Modular domestic cooking range - 09472D/06
ANC- 25.06.79 MANCHEM LTD C01 D22 E19 F09 (C03) =DE 3023-612
Divalent metal or boron cpds. and carboxylic acid radical - 06361D/05
ARI/ 23.09.80 MARICHAL-LEMAIRE E D22 *BE -885-335
Disposable napkin - 07836D/06
ARO 10.04.79 MARUI IND CO LTD D15 X27 =FR 2453-830
Aquarium water cleaning circuit - 79115C/45
ASW 14.07.79 BUCKAU R WOLF MASCH D15 =NL 8003-694
Water aeration tower - 03919D/04
ATU 21.05.79 MATSUSHITA ELEC IND KK A96 B04 D16 *J5 5153-594
Enzyme fixation on high molecular carrier - 08446D/06
ATW 18.05.79 MATSUSHITA ELEC WORKS D16 F09 *J5 5152-800
Decolourising process - 08401D/06
AUP/ 05.07.79 MAUPAS P A96 B04 D16 *WP 8100-050
Prodn. of hepatitis B vaccine - 09713D/06
AYC 29.12.75 MAYER O & CO INC D12 =DS 2659-006
Mfg. chopped morsels of low fat cooked bacon - 27192Y/16
AYR/ 13.07.79 MAYR A D12 =DE 2928-428
Sausage skin applicator - 06178D/05
EAT= 05.06.79 MEAT IND RES INST D12 =AT 7904-048
Heat treatment chamber - 07865D/06
EAT= 29.06.79 MEAT IND RES INST D12 *DE 2926-349
Heat treatment chamber - 07865D/06
EDI- 13.01.78 INTR MED BUCURESTI D23 E17 *RO --73-405
Methyl-heptenone perfume and perfume intermediate prepn. - D/06
EN 29.12.77 MOSCOW MENDELEEV CHEM IN D15 E31 J01 M14 *SU -?-003
Removing tri:valent and hexa:valent chromium cpds. from aq. waste - 09239D/06
EIJ 21.05.79 MEIJI SEIKA KAISHA D11 *J5 5153-549
Improving colour, taste and flavour of processed flour foods - 08437D/06
EIS/ 09.10.75 MEISEL N D14 X25 X26 =US 4246-462
Microwave tunnel oven for foodstuffs processing - 29441Y/17
ELN/ 25.11.77 MELNIKOV I A D16 *SU -739-090
Microorganisms growing unit - 09321D/06
MRE 13.07.79 MERCK PATENT GMBH A60 D21 E17 G01 (E33) *DE 2928-

Light-stabilised pearl lustre pigment - 07908D/06

*MEYE- 11.07.79 CHEM FAB MEYER-CAST A96 D21 *DE 2928-040
Cosmetic water-in-oil emulsion prepn. - 07889D/06
*MEYE- 11.07.79 CHEM FAB MEYER-CAST B07 D21 *DE 2928-041
Oil-in-water emulsion prepn. - 07890D/06
MIDW- 10.01.79 MIDWEST RES INST A88 D15 J01 =EP --22-827
Reverse osmosis membrane prepn. for water desalination - 56873C/32
*MIFI 01.11.78 MILLIPORE CORP B04 D16 *US 4246-339
Portable device for assaying body fluids - 09663D/06
*MIME= 25.11.77 MINSK MED INST B04 D16 S03 *SU -739-381
Biological material mono:amine oxidase activity determn. - 09409D/06
MINN 09.04.79 MINNESOTA MINING CO A96 B04 D16 =US 4246-344
Determn. of adherent cells with a piezoelectric oscillator - 77017C/43
MINN 29.06.79 MINNESOTA MINING CO D16 =WP 8100-063
Translucent microbial profile tray - 07734D/05
MINN 29.06.79 MINNESOTA MINING CO D16 =WP 8100-115
Multi-well tray for microorganism identification - 07729D/05
MIRA- 30.05.77 MIRANOL CHEM CO INC D21 E16 #CA 1092-605
Nitrogenous condensn. prods. usrful as surfactants - 62894Y/35
*MIRA- 18.06.79 MIRAJ INTR PROD COS D21 *RO --73-263
Skin-feeding cosmetic compsn. - D/06
MITO 16.01.76 MITSUBISHI HEAVY IND KK A35 D15 E37 M11 =J8 1001-147
Treating waste contg. heavy metals - 62116Y/35
MITP 18.05.79 MITSUBISHI PETROCH KK B05 D16 E16 =J5 5153-596
Essential amino acid L-valine and/or L-lysine microbiological prodn. - 60783C/35
*MITQ 21.05.79 MITSUBISHI ELECTRIC CORP D15 E36 *J5 5154-305
Recovering bromine from waste water contg. bromide ion - 08600D/06
*MITQ 22.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5155-709
Sludge dewatering device for waste water treatment plant - 08859D/06
MITR 09.01.76 MITSUBISHI RAYON KK A14 D15 F09 (A25 A91 A97) =DS 2700-575
Nontacky acrylamide (co)polymer hydrogels - 52571Y/30
MITR 09.04.79 MITSUBISHI RAYON KK A96 B04 D16 (A97) =FR 2453-899
Enzyme and microorganism immobilisation - 75564C/43
MITS- 24.08.76 MITSUBISHI KEIKINZO D15 M28 =J8 1001-150
Fluorine sepn. from waste water - 29844A/16
MITU 17.05.72 MITSUBISHI CHEM IND KK A97 D15 =J8 1000-515
Salt water purification - 57554V/32
*MITU 17.05.79 MITSUBISHI CHEM IND KK D16 (D13) *J5 5153-591
Autolysis method by treating microbial body with alkali - 08444D/06
*MITU 21.05.79 MITSUBISHI CHEM IND KK A96 B04 D21 (A14 B07) *J5 5154-911
Base material for cosmetic or drug - 08716D/06
*MIYA/ 22.05.79 MIYAMOTO O D15 E32 *J5 5155-736
Prodn. of compsn. for removing arsenic ions from water - 08880D/06
*MOEN= 21.05.76 MOSC ECON INST A97 D14 *SU -738-582
Pressing device for cabbage in plastic container - 09077D/06
*MOGI= 09.11.77 MOGIL TECHN INST D13 *SU -738-587
Milk sterilising appts. - 09082D/06
*MOMA= 07.12.77 MOSC MAGARACH D13 (D16) *SU -738-586
Aromatised grape juice concentrate prodn. - 09081D/06
*MOMD 24.11.77 MOSC MEAT DAIRY INDINST D14 S03 X25 *SU -737-831
Disperse state study in milk - 09056D/06
*MOMD 02.12.77 MOSCOW MEAT DAIRY INST D16 *SU -739-105
Biological suspension clearing unit - 09336D/06
*MOMD 09.02.78 MOSCOW MEAT DAIRY INST D12 S03 X25 *SU -737-832
Food produce e.g. sausage meat, flowline grinding appts. - 09057D/06
MORI- 18.08.76 MORINAGA ENG CO LTD D15 =GB 1584-042
Activated sludge treatment of organic effluent - 29538A/16
*MOSU 28.11.77 MOSCOW LOMONOSOV UNIV B04 D16 *SU -739-096
Bacterial strain Pseudomonas aurantiaca - 09327D/06
*MOSV= 14.07.78 MOSC SVOBODA COSMETICS B05 D21 E16 *SU -740-248
Conc. mouth-wash compsn. - 09433D/06
*MULT- 15.11.78 MULTI-FLO INC D15 X25 *US 4246-114
Aerobic waste treatment appts. with surge tank - 09569D/06

NAAR 23.11.76 NAARDEN INT NV B05 D13 E15 (D16 D21 D22 D25) =US 4246-292
Substd. cyclohexenone and cyclohexanone derivs. - 38855A/22
*NAKA- 21.05.79 NAKAGAWA KAGAKU SOC D15 *J5 5155-708
Industrial effluent filter press - 08858D/06
NATL 11.07.79 NL INDUSTRIES INC A14 D22 (A96 A97) =NL 8003-557
Copolymers of (meth)acrylic acid alkyl acrylate - 82659C/47
*NATT 14.09.77 NAT STARCH & CHEM CORP A97 D21 E19 *GB 1584-127
Aq. conditioning shampoo - 08291D/06
*NCAU= 29.08.77 N CAUCASUS HORTICUL D14 *SU -738-588
Removal of seeds and juice from fruit - 09083D/06
*NCAU= 02.01.78 N CAUCASUS BUTTER D16 (D13) *SU -739-097
Bacterial strain Streptococcus lactis 162A - 09328D/06
*NCAU= 02.01.78 N CAUCASUS BUTTER D16 (D13) *SU -739-098
Bacterial strain Streptococcus paracitrovorus 199A - 09329D/06
*NCAU= 02.01.78 N CAUCASUS BUTTER D16 (D13) *SU -739-099
Bacterial strain Streptococcus cremoris 912A - 09330D/06
*NCAU= 02.01.78 N CAUCASUS BUTTER D16 (D13) *SU -739-100
Bacterial strain streptococcus diacetilactis Ap1 - 09331D/06
*NCAU= 02.01.78 N CAUCASUS BUTTER D16 (D13) *SU -739-101
Bacterial strain streptococcus diacetilactis 500A - 09332D/06

NECO-

*NECO- 11.07.79 NECO AG D22 S05 *GB 2052-993
Self-adhesive healing plaster - 08301D/06
NEST 23.05.77 SOC PROD NESTLE SA D13 =GB 1583-814
Demineralisation of whey - 89955A/50
*NEST 23.11.78 SOC PROD NESTLE SA C03 D13 *FR 2453-607
Animal feed from coffee residues - 08229D/06
NEST 17.05.79 SOC PROD NESTLE SA A97 D13 E13 =J5 5153-786
Caffeine removal from oil solns. - 86634C/49
*NICH- 26.12.78 NICHIDEN KAGAKU KK A11 D16 (A14) *J5 5089-306
Low viscosity starch-PVA graft copolymer - 08372D/06
*NICH- 24.05.79 NICHIDEN KAGAKU KK A97 D25 *J5 5155-097
Detergent compsn. providing resistance to soil redeposition - 08817D/06
*NICO- 19.04.78 NICOLAU INST VIRUSO B04 D16 *RO --73-493
Cytomegallic antigen prepn. - D/06
NIET- 18.05.79 NIPPON ETHANOL KK B05 D16 E16 =J5 5153-596
Essential amino acid L-valine and/or L-lysine microbiological prodn. - 60783C/35
NIIG 20.09.76 NIIGATA ENG KK D15 =J8 1001-159
Redn. of nitrogen oxide(s) in waste liquor - 35737A/20
*NIKA- 23.05.79 NIPPON KANKYO SEIBI C04 D15 *J5 5155-789
Removing phosphorus components from effluent - 08893D/06
NIPB 10.03.75 NIPPON BEET SUGAR KK D16 (D17) =J8 1001-071
Enzyme prodn from Steffen's waste - 82011X/44
*NIPS 22.05.79 NIPPON SODA KK D15 *J5 5155-792
Pelletised water sterilising compsn. - 08895D/06
NISC 18.05.77 NISSAN CHEM IND KK D23 E17 =GB 1583-819
Linalool prepn. - 08744B/05
NISN 05.10.76 NISSHIN SPINNING KK A88 D15 J01 (A13 A14) =J8 1001-125
Membrane for separating aq. colloidal solns. of suspensions - 39452A/22
NISO 01.06.79 NIHON SHOKUHIN KAKO KK A97 B04 C03 D13 (D17 D21) =DE 3020-614
Cyclodextrin isolation from saccharide solns. - 71646C/41
NISW 19.04.75 NISSHIN OIL MILLS KK D13 =J8 1001-051
Soybean protein and casein powder mixt. prodn. - 93379X/50
*NISY 17.05.79 NIPPON SYNTH CHEM IND D11 *J5 5153-572
Using plastics rolling pin in noodle prepn. - 08443D/06
NITT 09.01.76 NITTO CHEM IND KK A14 D15 F09 (A25 A91 A97) =DS 2700-575
Nontacky acrylamide (co)polymer hydrogels - 52571Y/30
NITV 25.12.75 NITTAN KK D15 F09 =J8 1001-149
Paper pulp waste liquor treatment - 58449Y/33
NIUA 24.12.76 NIPPON SPINDLE MFG KK D15 =J8 1001-160
Acidic organic effluent treatment - 60960A/34
NMHB 27.04.77 NORDISCH MASCH R BAADER D12 #CA 1092-305
Fish paste mfr. - 02265A/02
NMHB 10.07.80 NORDISCH MASCH R BAADER D12 #PT --65-762
Conveyor which positions fish for decapitation - 09500Y/06
*NORO/ 06.07.79 NOROY T D12 *WP 8100-040
Skinning sheep carcass with rotating pulling drum - 09710D/06
NOVO 09.04.79 NOVO INDUSTRI AS D16 (D13) =FR 2453-896
De-stabilisation of microbial rennin - 75331C/43
NOVO 09.04.79 NOVO INDUSTRI AS D16 (D13) =FR 2453-897
De-stabilisation of microbial rennin - 75330C/43
NOVO 11.07.79 NOVO INDUSTRI A/S D13 =DE 3026-193
Soya protein hydrolysate from fat contg. soya material - 05721D/05
NOVO 11.07.79 NOVO INDUSTRI A/S D13 =GB 2053-228
Soya protein hydrolysate from fat contg. soya material - 05721D/05
NOVO 11.07.79 NOVO INDUSTRI A/S D13 =NL 8003-922
Soya protein hydrolysate from fat contg. soya material - 05721D/05
*NOVO- 23.10.78 NOVO LABS INC B04 D16 *US 4246-348
2-Keto-L-galactonic acid prodn. by fermentation - 09666D/06

*ODFO= 07.12.77 ODESS FOOD MACH D14 *SU -738-590
Long vegetables cutting machine - 09085D/06
*ODFO= 13.01.78 ODESS FOOD IND INST D16 *SU -739-093
Wine colouring substances content control - 09324D/06
*ODST= 14.07.78 ODESS STOMATOLOGY B05 D21 E16 *SU -740-248
Conc. mouth-wash compsn. - 09433D/06
OLIN 21.05.79 OLIN CORP A97 D25 =J5 5155-096
Novel alkoxy bis:tri:alkoxy:siloxy silane polymer surfactants - 69594C/40
OREA 11.06.69 L'OREAL SA D21 E14 (E24) =US 4246-181
Indoaniline dyeing compositions for ketatirnic - 92054R/49
OREA 23.10.75 L'OREAL SA A96 D21 E16 =CA 1092-610
Hydroxy-ethoxy-ethylamide glycidol polycondensates - 29134Y/17
OREA 21.04.76 L'OREAL SA D21 E24 =J5 5152-872
(3)-Nitro-(4)-hydroxy-ethylamino phenol and ring alkyl derivs. - 75874Y/43
OREA 04.05.79 L'OREAL SA A96 D21 (A14) =J5 5152-796
Modifying cosmetic oils by grafting with specified hydrophilic monomer - 82639C/47
OREA 10.07.79 L'OREAL SA D21 E14 =DE 3025-991
Hair dyeing compsn. - 05725D/05
OREA 10.07.79 L'OREAL SA D21 E14 =DE 3025-992
Hair dyeing compsn. - 05726D/05
OREA 10.07.79 L'OREAL SA D21 E14 =NL 8003-960
Hair dyeing compsn. - 05725D/05
OREA 10.07.79 L'OREAL SA D21 E14 =NL 8003-963
Hair dyeing compsn. - 05726D/05
*OREA 24.07.79 L'OREAL SA A96 D21 E24 *BE -884-417
Hair dyeing compsn. contg. 4-propyl or butyl M phenylene-di-amine(07809D/06
*ORIY 21.05.79 ORIENTAL YEAST KK D11 *J5 5153-549
Improving colour, taste and flavour of processed flour foods - 08437D/0
ORTH 26.04.79 ORTHO PHARM CORP B04 D16 S03 (S05) =DK 8001-803
Mono:clonal antibody produced by hybrid cell line - 83055C/47

PACE- 28.10.75 PACEMAKER CORP A96 B06 D21 =CA 1092-512
Thixotropic topical fluoride-phosphate gel compsn. - 89886B/50
PALY/ 12.07.79 PALYI L D11 =DE 2928-250
Wheat flour for bread baking - 08127D/06
*PALY/ 12.07.79 PALYI L D11 *EP --22-989
Wheat flour for bread baking - 08127D/06
PANL- 31.03.77 PANLABS INC B02 C02 D22 (D13) =SU -738-517
De:thia-penicillin derivs. from new Streptomyces species - 72706A/41
PASE 14.04.79 PASSAVANTW MICHELBACHER D15 =FR 2453-687
Bar screen cleaning rake - 49934C/29
*PAST- 01.06.78 PASTEUR INST VETERI D16 *RO --73-860
Cultivating Haemophilus gallinarum paragallinarum bacteria - D/06
*PAST- 07.06.78 PASTEUR INST VETERI B04 C03 D16 *RO --73-881
Infectious Aviary bursitis diagnosis antigen prepn. - D/06
PEEL/ 11.01.79 PEEL J L D22 E36 =EP --22-801
Sterilisation treatment esp. of spore forming microorganisms - 40016C/2
*PENN 11.06.79 PENNWALT CORP D14 *US 4245-936
Water tank for transporting fruit - 09506D/06
*PENN/ 18.12.78 PENNER N D12 *CA 1092-306
Power driven fish scaler - 07839D/06
PEPS 07.07.75 PEPSICO INC D13 =CA 1092-433
Potato products having less reducing sugars content - 09700Y/06
*PETR- 31.12.77 COMB PETROCH BRAZI C03 D15 (C04 D13) *RO --73-604
Biological residual water purification - D/06
PEUS/ 29.01.79 PEUSER M F X D15 J01 M11 =EP --22-839
Effluent treatment of electroplating baths - 43314C/25
PHAS 16.05.79 PHARMASCIENCE LABS D22 E16 =J5 5153-587
Sterilisation or disinfection of appts. e.g. dairy equipment - 84716C/48
PHIM 01.08.77 PHILIP MORRIS INC A88 D18 E31 =EP G000-625
Granular filter comprising supported alkali or alkaline earth ferrate 10332B/06
PITT 02.06.75 PPG INDUSTRIES INC A35 D22 J04 V05 =J5 1145-184
Ultraviolet light irradiation plant - 94671X/51
PITT 02.06.75 PPG INDUSTRIES INC A35 D22 J04 V05 =J8 1001-134
Ultraviolet light irradiation plant - 94671X/51
PKLP- 03.07.79 PKL PAPIER & KUNST D13 =GB 2052-949
Pasteurised milk filling plant - 03860D/04
*PLAN= 05.06.78 PLANT MICROBIOL PRO C03 D16 *SU -738-571
Microbiological plant pesticide prodn. - 09066D/06
*PLAN= 17.01.79 PLANT PROTECTION C03 D13 *SU -740-204
Aq. nutrient for entophage insects Chrysopa septempunctata - 09425D/0
*POKK 19.05.79 POLA KASEI KOGYO KK A96 D21 *J5 5153-711
Cosmetic lotion - 08485D/06
*POKU/ 09.01.78 POKUTNEV L S D17 *SU -739-106
Sugar production carbonation juice settler - 09337D/06
POLA 23.01.78 POLAK'S FRUTAL WORKS INC D13 E19 #FR 2453-609
Aroma-reinforcing agents, esp. for citrus juice drinks - 55432A/31
*POLA 09.05.79 POLAK'S FRUTAL WORKS INC D23 E15 *GB 2053-199
Tri:methyl substd. cyclopentane butane and butene nitrile(s) - 08329D/0
*PRIO/ 19.07.79 PRIOR E S A97 C03 D13 F09 (C04) *EP --22-881
Accelerated pulping of lignocellulosic fibre material - 08075D/06
*PROC 20.10.75 PROCTER & GAMBLE CO D21 E16 *US 4246-285
Skin conditioning compsn. contg. guanidine salts - 09640D/06
PROC 18.07.77 PROCTER & GAMBLE CO A96 D21 E19 (E32 E33) =EP G000-604
Stable antiperspirant stick compsn. - 10320B/06
PROC 28.02.79 PROCTER & GAMBLE CO A97 D25 E19 (E34) =J5 5152-862
Removal of oily soil from fabrics - 68255C/39
PROC 18.04.79 PROCTER & GAMBLE CO D22 E19 =US 4246-129
Solid, water dispersible compsn. for toilet bowl dispensing - 83011C/4
*PROC 18.07.79 PROCTER & GAMBLE CO D13 *EP --23-062
Hard butter fats low in asymmetric tri:glyceride(s) - 08165D/06
*PURE- 24.01.77 PURE CYCLE CORP D15 T06 X25 *US 4246-101
Water recycling system controlled by microprocessor - 09562D/06

*QPPP 21.05.79 Q.P. CORP D13 *J5 5153-554
Salad prepn. by admixing oil-in-water emulsion with solids - 08439D/
*QPPP 21.05.79 Q.P. CORP D13 *J5 5153-555
Storage stable salad prod. prepn. - 08440D/06

ANG 01.06.77 RANK HOVIS MCDOUGAL LTD D16 =GB 1584-103
Aerobic fermentation acceleration - 91709A/51
AUS/ 03.10.80 RAUSCHENBERG B R D16 *BR 8006-368
Distn. of anhydrous and/or neutral alcohol from fermented must - D/06
AUS/ 03.10.80 RAUSCHENBERG B R D16 *BR 8006-369
Integrated evaporator for distn. of alcohol - D/06
GC 24.05.79 UNIV OF CALIFORNIA B04 D16 =DK 8002-266
DNA transfer vector comprising genome of non passageable virus - 90704C/51
EMO/ 12.07.79 REMONATO G D18 #DE 2928-201
Continuous drying appts. partic. for tanned hides - 72192C/41
ENO 29.11.76 REDERI AB NORDSTJERNA D15 =US 4246-102
Liq. impurities sepn. system - 40781A/23
ESE- 08.12.77 RESEARCH ORGANICS D16 E16 *US 4246-194
Amino-2-hydroxyalkyl-sulphonic acids - 09605D/06
HON 24.03.76 RHONE-POULENC INDUSTRIES A97 D25 E19 (A25) =RO - 2-707
Nonionic surfactant contg. mixt. of ethoxylated alcohols - 68825Y/39
ICT 19.08.76 RICHTER GEDEON VEGY C03 D13 E19 =RO --73-690
Blemish-preventing compsn. for apples, esp. with red skins - 14040A/08
IKL 19.12.77 RIKER LABS INC B02 C02 D22 *US 4246-179
Carboxymethyl-phenyl-3-alkyl-benzofuran derivs. - 09597D/06
IME= 07.06.78 RIGA MED INST D22 *SU -740-236
Kidney allo-transplant normal function evaluation - 09432D/06
IOHM 27.12.73 ROHM & HAAS CO A97 D17 (A13 A91) =J8 1001-080
Purifying, e.g decolourising sugar-contg. liquids - 47988W/29
IOHR/ 14.04.77 ROHRER E D15 =US 4246-105
Water and waste water purification - 84363A/47
IOSS- 27.07.79 ROSSI & CATELLI DI D13 *PT --71-614
Shredding machine esp. for tomatoes - D/06
IOST= 10.01.78 ROSTOV COMMUNAL ECO D15 J02 *SU -738-648
Hydraulic mixer for water purification, etc. - 09107D/06
IOUS 26.06.79 ROUSSEL UCLAF B04 C03 D13 =BR 8003-973
Alpha-lactalbumin enriched food supplement - 06239D/05
IOUS 26.06.79 ROUSSEL UCLAF D13 (D16) =BR 8003-974
Total enzymatic hydrolysate of whey protein - 02611D/03
IOUS 19.07.79 ROUSSEL UCLAF B02 C02 D22 *BE -884-379
7-Amino-thiazolyl-acetamido cephalosporin derivs. - 07797D/06
ITEC 18.07.79 RTE CORP A88 D15 J01 X12 *EP --23-111
Removal of halogenated organic contaminant from liquid - 08192D/06
IUHR 13.07.79 RUHRCHEMIE AG D23 E15 =NL 8003-759
3- and 4-Formyl-tri:cyclo-(5,2,1,0-2,6)-decene-3 prodn. - 05713D/05

SAFA- 14.03.79 SAF SOC AGRI FONC C03 D16 (C04 D13) =NO 8003-429
Fermentation of diluted, ground manure - 71575C/40
SAGA 10.04.79 SAGAMI CHEM RES CENTRE B05 D13 E14 =FR 2453-845
Alpha-L-aspartyl-L-phenylalanine ester sweetening agents purificn. - 77325C/44
SALA/ 08.06.79 SALA F D13 T05 =NO 8001-691
Indicator of transitory defrosting of frozen food etc. - 73516C/42
SAND/ 18.04.80 SANDOR S D D13 X27 *CA 1092-429
Brewing of hot beverages - 07844D/06
SANN 19.06.79 SANYO CHEM INDS KK A97 D15 G04 =BR 8003-827
Boiler scale removal without stopping plant operation - 05927D/05
SANO 18.06.74 SANDOZ AG A60 D25 E13 F06 =RO --73-617
Diphenyl pyrazoline cpds. contg. sulphonic acid group - 00070X/01
SANP 28.06.79 SANSHO PHARM KK D21 E13 *GB 2052-973
Mono or di:ester or kojic acid and carboxylic acid cosmetic compsn. - 08296D/06
SANY 13.07.79 SANKYO KK A60 C03 D22 F09 *DE 3026-431
3-Bromo or 3-iodo 2,2-di:iodo allyl ester and ester derivs. - 08055D/06
SAOC 29.10.74 SANRAKU OCEAN C03 D13 E17 =J8 1001-059
Oil material for fish feed - 46910X/25
SAOC 31.03.77 SANRAKU OCEAN B02 C02 D22 (D13) =SU -738-517
De:thia-penicillin derivs. from new Streptomyces species - 72706A/41
SCED/ 29.08.78 SCED I R A96 D21 =EP --22-772
Hardenable cement of poly:carboxylic acid and ion leachable material - 18918C/11
SCHD 15.05.79 SCHERING AG B01 D16 =J5 5153-598
12-Alpha-hydroxy steroid prodn. by microbiological hydroxylation - 86728C/49
SCHE/ 06.08.77 SCHENCK G O D22 (D15) =EP G000-773
Multichamber sterilising photo-reactor - 12217B/07
SCHU/ 18.07.79 SCHUBETZER J D14 *EP --23-008
Chassis mounted mobile cleaner for market garden vegetables - 08134D/06
SCHW/ 17.02.76 PETERSEN A W A82 D25 E37 G02 =CA 1092-740
Cleaning compsn. for tiles and grout - 43270Y/24
SEAR 01.06.79 SEARLE G D & CO B04 D16 =SE 8004-066
Plasmids useful as vectors for eucaryotic DNA - 88368C/50
SEIS 11.09.78 SEISAN KAIHATSU KAGAKU A91 B03 D13 E13 =J8 1001-1
Purificn. of stevioside extract - 31914C/18

SEKI/ 27.09.76 SEKIYA T D25 G04 =J8 1001-360
Non-pollutant multipurpose detergent compsn. - 37326A/21
SELW- 29.07.78 SELWIG & LANGE MASC D17 =FR 2453-900
Preliminary liming plant for raw sugar beet juice - 87781B/49
*SETA- 19.07.79 SETAL SOC ETUD TECH D16 E17 H06 (D15) *EP --23-176
Fermentation chamber to produce methane from organic waste - 08215D/06
SHER- 27.06.79 SHEREX CHEM CO INC D25 E16 (E14) =WP 8100-106
Foam stabiliser for foam contg. alkyl benzene sulphonate(s) - 86394C/49
SHIE 12.12.77 SHINETSU CHEM IND KK C02 D13 E13 =US 4246-178
Tetra:hydro-pyranone derivs. - 44451B/24
*SHIO 26.04.79 SHIONOGI KK B02 D16 *J5 5143-996
Antibiotic PA-32413-I prepd. from Streptomyces clavuligerus - 08388D/06
*SHIO 24.05.79 SHIONOGI KK B03 C01 D22 (D13) *J5 5154-982
Antitumour, antimicrobial closo or nido carbolan derivs. - 08750D/06
*SIYA 22.05.79 SANSEI SEIYAKU KK B03 D16 *J5 5154-916
Analgesic and antiphlogistic compsns. - 08719D/06
*SLAG- 27.06.79 SLAGTERIREGION SYD D12 *WP 8100-039
Scraping pig carcass by rotating brushes - 09709D/06
*SLOV- 09.07.79 SLOVENSKA AKAD VIED A60 B04 D16 E36 *DE 3025-437
Large-pored silicic acid xerogel prepn. - 08024D/06
*SMAL/ 02.07.79 SMALL S H D15 *WP 8100-102
Waste disposal appts. for vacuum sewer system - 09729D/06
SMIN 08.10.76 SMITH & NEPHEW LTD A96 D22 =US 4245-630
Flexible multilayer band partic. of adhesive surgical dressing - 12326A/07
SOCH 15.05.79 SOC CHiM ORG BIOL AEC B05 D16 E19 =J5 5153-595
D-alpha-aminoacid prepn. by enzymatic hydrolysis of hydantoin - 84365C/48
SODA- 25.10.76 SODAFLO DRINKS LTD D15 #CA 1092-507
Drink carbonating apparatus - 22309Y/13
SOLA- 09.07.79 SOLAR AQUASYSTEMS A93 D15 #BR 7904-351
Aerobic treatment of waste water - 73499B/40
SOLV 06.07.79 DEUTSCHE SOLVAY-WER C03 D22 F09 G02 =DE 2927-349
Wood preservative compsn. contg. two fungicides - 08083D/06
*SOLV 06.07.79 DEUT SOLVAY-W GMBH C03 D22 F09 G02 *EP --22-900
Wood preservative compsn. contg. two fungicides - 08083D/06
SORE/ 20.09.78 SORENSEN K H D16 E17 =EP --22-784
Methane generation from domestic or livestock manure - 31080C/17
SOSH 26.04.77 SODA KORYO KK D23 E17 (E13 E14) =US 4246-182
Omega-hydroxy fatty acid prodn. - 82515A/46
*SOUT- 27.06.79 SOUTHLAND CORP D13 E17 (D21 E12) *WP 8100-061
Hydrated emulsifier prodn. - 09720D/06
SPEZ- 07.06.79 VEB SPEZIALTRIKOT K D22 F07 =SE 8003-800
Compression stocking for amputated stump - 73528C/42
*SPOT/ 23.07.79 SPOTZL M A88 D12 *EP --23-044
Flexible parting tool - 08154D/06
STAM 30.06.79 STAMICARBON BV C03 D15 E36 (C04 D13) =DE 3023-968
Phosphate removal from waste water - 05690D/05
STAU 15.04.76 STAUFFER CHEMICAL CO D13 =CA 1092-432
Production of yoke extender - 87383Y/49
*STAV= 09.11.77 STAVROPOL POLY D13 S03 *SU -739-405
Determining storage stability of dried milk - 09415D/06
STBR 27.06.77 STANDARD BRANDS INC D13 =CA 1092-431
Sauce mix in form of plastic mass - 87773A/48
STRI 09.04.79 SRI INTERNATIONAL D16 (D17) =FR 2453-895
Cellulase prodn. by Thielavia terrestris cultivation - 75619C/43
STUD 04.08.76 STUDIENGES KOHLE MBH D13 =RO --73-737
Decaffeination of coffee - 06375A/04
*SUGA= 24.01.78 SUGAR IND RES INST D17 *SU -739-107
Diffuser condensate sulphitation unit - 09338D/06
*SUMB 24.05.79 SUMITOMO BAKELITE KK A88 D15 J01 *J5 5155-703
Semipermeable membrane comprising polysulphone resin and epoxy resin - 08854D/06
SUMD 28.12.76 SUMITOMO CEMENT KK D15 =J8 1001-154
Treating waste from washing heavy metal contaminated soil - 61239A/34
SUMO 25.10.72 SUMITOMO CHEMICAL KK A94 D15 F04 H05 =J8 1000-539
Nonwoven synth fabrics for oil removal - 08229W/05
SUNK- 21.06.78 SUNKIST GROWERS INC D13 =US 4246-098
Appts. for automatically grading and sorting articles, esp. fruit - 69550C/39
*SUNZ 21.05.79 SUN STAR HAMIGAKI K D21 E31 (E12) *J5 5154-912
Hair dyeing process - 08717D/06
*SUZU/ 18.05.79 SUZUKI Y D13 *J5 5153-571
Dry rice prodn. - 08442D/06
SYNT 05.04.78 SYVA CO A96 B04 D16 J04 (S03) =EP --22-768
Direct immunoassay method for ligand or receptor determn. - 78496B/43

TAID 26.03.73 TAIYO YUDEN KK D13 (D16) =J4 9118-866
Yolk lipid sepn. - 08940D/06
*TAID 26.03.73 TAIYO YUDEN KK D13 (D16) *J8 1000-440
Yolk lipid sepn. - 08940D/06
TAIY- 09.06.75 TAIYO KORYO KK D23 E15 =J8 1000-415
Alkyl isopiperitenone derivs. used in perfume mfr. - 08346Y/05

TAKE

*TAKE 21.05.79 TAKEDA CHEMICAL IND KK D12 *J5 5153-552
Marine pasty food mfr. - 08438D/06
TAKE 21 06.79 TAKEDA CHEMICAL IND KK C03 D16 = DE 3022-723
Fermentative prodn. of mildiomycin antibiotic - 05082D/04
TAKE 21.06.79 TAKEDA YAKUHIN KOGY C03 D16 = GB 2053-214
Fermentative prodn. of mildiomycin antibiotic - 05082D/04
*TAKS 21.05.79 TAKASAGO PERFUMERY KK D11 *J5 5153-549
Improving colour, taste and flavour of processed flour foods - 08437D/06
*TAKS 21.05.79 TAKASAGO PERFUMERY KK D23 E15 *J5 5154-929
Para-menthen-i-ol cpds. prodn - 08725D/06
*TAPR- 12.07.79 TAPROGGE L REINIGUN D15 *DE 2928-093
Lower pressure drop water filter - 07895D/06
TATL 30.01.78 TATE & LYLE LTD D18 (D13 D21) = DS 2817-092
Smoking products based on tobacco contg. taumatin or monellin - 63444A/36
TEIJ 19.07.76 TEIJIN KK A97 D15 F01 J01 (A13) = GB 1584-107
Fibre material for breaking of emulsions - 08632A/05
TEIJ 00.00.77 TEIJIN KK B05 C03 D16 = J8 1001-075
Hydroxy-cyclopentenone derivs. prepn. - 43224A/24
*TEIN- 24.06.77 INST TEHN IND USOAR D15 F06 *RO --73-343
Textiles finishing waste water cleaner - D/06
*TEKH= 04.03.76 TEKHRYBPROM D12 T06 X25 *SU -738-576
Automatic fish dressing machine working parts control appts. - 09071D/06
*TEKH= 05.12.77 TEKHRYBPROM D12 *SU -738-575
Various length fish orienter - 09070D/06
TEMO- 21.05.79 TEMOVA ETAB A83 D22 F07 S05 (X27) = DK 8002-204
Knitted therapeutic vest - 90551C/51
*TEMR= 09.11.77 TEMRYUK FISH CANNIN D14 *SU -738-579
Food products smoking equipment - 09074D/06
TEXI- 12.03.79 TEXILON AB D22 F07 = NO 8003-406
Protective cloth for disposable covers - 71573C/40
*THIE/ 27.06.79 THIEL W D12 *DE 2925-821
Preserving fresh meat in fresh condition - 07859D/06
*TOAK- 22.05.79 TOA EENSETSU KOGYO KK D15 *J5 5155-713
Device for removing solids from slurry from rivers, harbours, etc. - 08861D/06
TODE- 10.12.76 TODEN KANKYO ENG KK D15 = J8 1000-675
Fresh water prodn. from brine or sea water - 55913A/31
*TOSH- 21.05.79 TOSHIBA KAGAKU KOGY B04 D16 *J5 5154-464
Prepn. of B sensitised erythrocytes - 08648D/06
TOWN 25.05.79 TOWNSEND ENG CO D12 = DK 8001-814
Injecting fluid esp. brine into meat and fish for curing - 69605C/40
TOWN 06.06.79 TOWNSEND ENG CO D12 = SE 8004-096
Cutting sausage links suspended from slotted hook conveyor - 88073C/49
TOXN 25.03.78 TOYO JOZO KK B04 D16 J04 S03 (S05) = US 4246-342
Reagent for assay of pyruvate - 73838B/41
TOYJ 10.04.79 TOYO SODA NFG CO LTD B05 D13 E14 = FR 2453-845
Alpha-L-aspartyl-L-phenylalanine ester sweetening agents purificn. - 77325C/44
*TOYM 10.05.79 TOYOBO KK B05 D16 *J5 5153-597
12-Keto:chenodeoxycholic acid prodn. - 08447D/06
*TSUB 07.06.71 KUMIAI CHEM IND KK C03 D22 E14 G02 *J8 1000-580
Fungicide and rat poison - 08953D/06
*TSVO= 28.12.77 TASHK VODGEO WATER A91 D15 J01 *SU -738-999
Removal of finely dispersed solids from industrial waste water - 09235D/06
*TURN/ 13.04.79 TURNSEK M D16 E17 (D15) *FR 2453-999
Pump to compress methane driven by low pressure fluid - 08260D/06
*TYUR/ 07.07.76 TYURIN B K D15 E19 (E37) *SU -739-006
Removal of chlorinated organic cpds. from industrial aq. waste - 09242D/06

*UAGR= 27.09.78 UKR AGRIC ACAD B04 C03 D16 *SU -740-249
Inactivation of Dendrodochium toxicum fungal toxin - 09434D/06
*UBEI 24.05.79 UBE INDUSTRIES KK D15 *J5 5155-702
Evaporator for concn. of waste water treatment sludge - 08853D/06
UCOA= 12.04.79 UKR COAL CHEM INST D15 #FR 2453-668
Impeller for aerating sewage sludge - 62659C/36
*UFAP 20.06.78 UFA PETROLEUM INST C02 D22 E13 H01 (H03) *SU -739-218
Antibacterial methyl di:hydro-pyran - 09406D/06
*UFOO= 31.01.78 UKR FOOD SUPP EQUIP D11 *SU -738-955
Bread loaf conveyor and distributor - 09224D/06
*UGIT 19.02.77 UNITED GAS INDS LTD A88 D18 *GB 1583-912
Appts. for dressing leather diaphragms - 08282D/06
*ULTR- 25.07.79 ULTRACEPT INC D15 *US 4246-112
Appts. for recycling of industrial water - 09567D/06
*ULTR- 25.07.79 ULTRACEPT INC D15 *US 4246-113
Appts. for sepn. of oil from water in industrial waste - 09568D/06
*UMEA= 31.07.78 UKR MEAT DAIRY RES D13 S03 *SU -739-407
Determination of solid phase in fatty food prod. e.g. cream - 09417D/06
UNIC 12.11.75 UNION CARBIDE CORP D15 = CA 1092-730
Effluent clarifier wet sludge treatment - 58861A/33
UNIC 14.05.76 UNION CARBIDE CORP D12 = GB 1584-011
Food stuffing device for skins - 83304Y/47
UNIC 23.12.76 UNION CARBIDE CORP A92 D12 = GB 1583-789
Tubular wrapper for food prods. esp. sausages - 45823A/26
*UNIC 08.02.77 UNION CARBIDE CORP D16 *US 4246-099
Warm digestion of sludge - 09560D/06
UNIC 13.04.79 UNION CARBIDE CORP D12 #FR 2453-792
Shirred sausage casing - 61398B/33
UNIC 04.06.79 UNION CARBIDE CORP D12 T06 X25 = SE 8004-128
Machine to fill tubular sausage casings from collapsed concertina form - 90143C/51
UNIL 18.06.68 UNILEVER NV A97 D12 = DS 1930-887
Collagen-encased sausage - 43635Q/00
UNIL 03.07.72 UNILEVER NV A97 D13 = J8 1001-056
Regeneration of denatured protein material - 05013V/03
UNIL 05.11.76 UNILEVER LTD D21 E13 = CA 1092-511
Cosmetic water-in-oil emulsions - 62216A/35
UNIL 17.03.77 UNILEVER LTD D13 = CA 1092-430
Prepn. of composite foods, esp. sweets such as peach melba - 67073A/38
*UNIL 13.05.77 UNILEVER NV D13 *GB 1583-991
Protein concentrate prodn. from oil seeds - D/06
UNIL 02.10.78 UNILEVER NV D25 E19 (E34) = PT --70-256
Pourable, scouring cleanser compsns. - 27732C/16
UNIL 05.10.78 UNILEVER NV A96 D22 E17 (E16) = PT --70-278
Water swellable particulate absorbent material - 27748C/16
UNIL 01.11.78 UNILEVER NV D21 E33 = PT --70-399
Boehmite-contg. dentifrice compsn. - 35068C/20
UNIL 21.05.79 UNILEVER NV A87 D25 E19 F06 = DK 8002-203
Conc., aq. liq. fabric softeners - 86374C/49
UNIL 21.05.79 UNILEVER NV A97 D25 E14 (A12) = J5 5155-098
Nonionic surfactant, esp. spray dried detergent, compsn. - 86862C/49
*UNIL 20.06.79 UNILEVER LTD B05 D21 *GB 2052-978
Zinc salts and glycine in oral compsns. - 08298D/06
UNIL 21.06.79 UNILEVER NV D25 E19 (E34) = BR 8003-866
Aq. liq. detergent compsn. with active phosphate additive system - 02022D/03
UNIL 06.07.79 UNILEVER NV D25 E16 = DE 3024-912
Particulate bleaching compsns., esp. washing powders - 05715D/05
UNIL 06.07.79 UNILEVER NV D25 E16 = NL 8003-907
Particulate bleaching compsns., esp. washing powders - 05715D/05
*UNIL 20.07.79 UNILEVER LTD D13 *EP --23-150
Ice-cream products including fat-based coating - 08205D/06
*UNIL 20.07.79 UNILEVER LTD D13 *EP --23-151
Ice-cream products with coated wafer cone - 08206D/06
*UNIL 20.07.79 UNILEVER LTD D13 *EP --23-152
Prodn. of ice-cream products with coated wafer cone - 08207D/06
UNIL 20.05.80 UNILEVER NV A87 D25 E19 F06 = GB 2053-249
Conc., aq. liq. fabric softeners - 86374C/49
*UNIL 28.05.80 UNILEVER NV D25 (D17) *DS 3020-269
Perfuming anionic surfactant-contg. powdery cleanser compsn. - 08073D/06
*UNVO 08.12.77 UOP INC A97 C04 D15 *US 4245-396
Sewage sludge drying process - 09445D/06
UNVO 16.10.78 UOP INC A96 B04 D16 = FR 2453-898
Matrix for immobilising enzymes - 29672C/17
UNVO 15.06.79 UOP INC A97 D17 J01 = BR 8003-730
Selective adsorption of components from an aq. soln. - 00288D/01
UPJO 09.04.79 UPJOHN CO B04 D16 = FR 2453-894
Plasmid pUC7 isolated from Streptomyces espinosus strain - 78243C/44
USAS 24.01.75 NAT AERO SPACE ADMIN B04 D16 J04 S03 (J03 S01 S05) = US 4246-343
Electrochemical detection of microorganisms - 43409Y/25
*USDA 26.02.79 US SEC OF AGRICULTURE A89 D13 J04 S03 *US 4245-494
Analyser for volatiles from food prods - 09457D/06
*USDA 26.02.79 US SEC OF AGRICULTURE C03 D16 *US 4246-258
Controlling plant diseases caused by sclerotia of fungi - 09632D/06
*USDA 05.07.79 US SEC OF AGRICULTURE D13 *US 4246-289
Prodn. of dried edible pieces of aroid corms - 09643D/06
*USRE- 05.07.79 US RESEARCH CORP B04 D16 S03 (S05) *WP 8100-116
Interferon prodn. and analysis - 09734D/06
*USSE= 22.07.76 UKR SOUTH SEAS BIOL D15 J01 *SU -739-000
Biochemical cleaner for water containing oil - 09236D/06
*USSR= 10.10.77 USSR CONSUM SOC ASS D14 *SU -738-946
Fruit salad can filling machine - 09222D/06
*UWAT= 01.06.76 UKR WATER CONS ENG D15 *SU -739-004
Purificn. of aq. waste contg. petroleum etc. prods. - 09240D/06
UYBE- 16.05.79 BEN-GURION UNIV D13 #J5 5153-558
Powder compsns. for prodn. of acidulated milk prods. - 82813C/47
*UYDE- 15.06.77 UNIV OF DELAWARE A89 B04 D16 *US 4246-341
Detecting and visualising xanthine oxidase enzyme - 09664D/06
*UYMO= 28.11.77 MOSC LUMUMBA UNIV B04 D16 *SU -739-096
Bacterial strain Pseudomonas aurantiaca - 09327D/06
UYVI- 24.01.75 UNIV OF VIRGINIA B04 D16 J04 S03 (J03 S01 S05) = US 4246-343
Electrochemical detection of microorganisms - 43409Y/25

*VALL/ 09.04.79 VALLAS G D14 *FR 2454-088
Dispensing pump for delicate prods. such as cheese curds - 08266D/06

E 27.08.76 VER PAPIERW SCHICKEDANZ A96 D22 (A11) =GB 1583-

Absorbent cellulose-sodium CMC fibres - 00084A/01
G- 13.04.79 VIZGAZDALKODASI TUD D15 =FR 2453-832
Disinfection of sludge from waste water purificn. plants etc. - 60528C/35
TE= 04.10.76 VORON TECHN INST D16 *SU -739-092
Fruit pulp fermenter - 09323D/06

KO- 01.06.79 WAKO RIKAGAKU KENK A97 B04 C03 D13 (D17 D21)
E 3020-614
Cyclodextrin isolation from saccharide solns. - 71646C/41
TE= 05.03.74 WATER SUPP DRAINAGE D15 *SU -739-001
Horizontal water settler - 09237D/06
BE- 16.01.79 WEBER W ING-GMBH D15 =EP --22-809
Biological purificn. of waste water in open tank - 41509C/24
BE- 16.01.79 WEBER W ING GMBH D15 =GB 2053-183
Biological purificn. of waste water in open tank - 41509C/24
LA 24.07.79 WELLA AG D21 E19 *EP --22-996
Permanent hair waving or straightening compsn. - 08128D/06
LL 11.05.76 WELLCOME FOUNDATION LTD B02 C02 D16 =GB 1583-

Prostaglandin derivs. - 81213Y/46
LL 11.05.76 WELLCOME FOUNDATION LTD B02 C02 D16 =GB 1583-

Prostaglandin derivs. - 81213Y/46
LL/ 03.07.78 WILLIAMS R M D15 *US 4245-570
Appts. for disposal of sewage sludge - 09465D/06
NT 16.07.79 WINTERSHALL AG D16 H03 (H05) *GB 2053-182
Oil sepn. from earth, water or adsorbents - 08324D/06
ORL- 22.11.76 WORLD RESOURCES CO D15 M25 =CA 1092-360
Recovery of precious metal values from waste water - 50149Y/28

KU= 01.06.79 YAKUT LEATHER-SHOE D18 *SE 7904-859
Leather treatment to retain hair covering - D/06
MA- 19.05.78 YAMAHATSU SANGYO KK D21 E17 (E37) =DS 2920-163
Permanent wave preparation for warm setting - 87939B/49
SH 21.05.79 YOSHITOMI PHARM IND KK A81 C03 D22 F09 (C01) *J5
4-908
Antiseptic for wood prods. - 08713D/06
SH 22.05.79 YOSHITOMI PHARM IND KK C01 D22 E12 F09 (C03 E17)
5154-905
Antiseptic compsn. for wood - 08712D/06
SH 02.07.79 YOSHITOMI PHARMACEUTICAL D22 E16 F09 H08 (D15)
3024-911
Antimicrobial agents for industrial use - 08015D/06
SH 02.07.79 YOSHITOMI PHARM INDS LTD D22 E16 F09 H08 (D15)
-B 2052-989
Antimicrobial agents for industrial use - 08015D/06

D 15.03.77 ZH BISEIBUTSU KAGAKU KEN B04 D16 =GB 1583-833
Isolation of coformycin and related cpds. from aq. soln. - 92049A/51
D 02.11.77 ZH BISEIBUTSU KAGAKU KEN B04 D16 (D21) =J8 1001-

Insoluble glucan decomposing enzyme prodn. - 51403B/28
H/ 11.08.77 ZAKHARKIN L I D23 E17 *SU -739-057
Satd. food grade carboxylic acids - 09292D/06
I/ 06.07.79 ZURITA H G D17 J01 #GB 2053-019
Heat exchanger for moving crystallising liquids - 11147C/07

Q

Q AD
909-339 Q00
930-887 R02
888-120 S51
010-545 U14
734-585 Q01
030-009 B26
161-973 B48
930-887 D06

R

R DE
751-753 R49
028-846 R50
008-472 R50
050-990 S26
514-339 T03
805-443 U05
805-442 U05
974-534 W40
974-533 W40
929-403 X02
066-045 A07
066-044 A07
066-044 B14
028-846 C11
163-250 C13
907-810 C16
246-181 D06

S

S D
155-287 S24
118-948 U22
118-949 U22
155-287 D06

S D
121-577 S47+
142-232 V09+
153-102 V20+
153-101 V20+
131-759 X04
132-875 X08+
191-056 T16
157-250 C21+
121-577 D06+

T

D
16-519 T25
11-973 T26
16-585 T26
11-972 T26
16-476 T44
13-516 U29
11-228 V08
16-130 V37
17-020 B29
13-058 B49
15-585 D06

U

ADG
0-404 U10
0-270 X24
2-908 X42
2-275 Y26
1-935 B04
0-404 D06

BD
-994 U37
-651 U38
-832 U38
-238 U51
-397 U52
-088 V08
-243 V28
-574 V49
-884 W03
-546 W18
-105 W24
-611 W45
006 X05
018 X29
020 X34
607 Y32

DS 2209-832 A31
SU -576-050 A35
CS 7301-417 A43
CS 7606-892 A43
RO --73-776 D06

61502-U BDE
BE -798-890 U41+
NL 7305-828 U46
DE 2321-461 U47
FR 2182-211 V05+
US 3825-472 V31+
J4 9080-289 V51
J4 9001-794 V17
ZA 7302-869 V22
J4 9036-888 V31
J4 9048-891 V39
DS 2321-461 W26+
GB 1430-842 X15+
CH -574-501 X23+
CA -995-163 X36+
SU -526-295 Y45+
CS 7302-931 Y47+
HU T014-957 A23+
IT 1030-538 B27+
J8 0001-040 C06
J8 1001-078 D06

65752-U CDEM
DE 2217-692 U44
NL 7305-231 U44
BE -798-117 U44
FR 2180-101 V03
J4 9017-386 V16
US 3923-876 W51
CH -571-012 X07
DK 7504-534 X11
CH -579-583 X42
CA 1010-887 Y22
J7 9009-593 B20
DS 2217-692 D06

V

05013-V AD
NL 7309-172 V03
BE -801-859 V04
DE 2333-579 V05
J4 9055-869 V31
ZA 7304-421 W14
US 3873-749 W14
FR 2236-421 W17
GB 1443-513 X30
CA 1020-010 Y46
J8 1001-056 D06

17375-V D
BE -806-463 V10+
NL 7314-408 V20+
DE 2353-582 V20+
FR 2204-362 V35+
DD -107-584 V42+
ZA 7307-824 V43
J4 9133-555 W08+
SE 7314-523 W25+
CH -563-121 W30+
GB 1405-813 W37+
CA -989-244 X23+
US 3962-473 X25+
SU -656-468 B51+
DS 2353-582 C01+
IT 1045-002 C28
RO --73-533 D06+

30641-V DE
US 3803-331 V16
J4 9048-873 V28
CH -573-714 X19
CA -991-011 X27
J8 1001-063 D06

45553-V D
DE 2259-830 V25
BE -808-290 V25
NL 7316-675 V26
FR 2209-832 V40
GB 1396-678 W23
CH -594-048 A02
DS 2259-830 D06

57554-V AD
J4 9012-048 V32
J8 1000-515 D06

74263-V D
US 3840-675 V42
J4 9094-874 V46
CA 1002-383 Y03
J8 1001-062 D06

W

08229-W ADFH
J4 9066-968 W05
J8 1000-539 D06

47988-W AD
DE 2460-322 W29
J5 0095-438 W39
ZA 7407-966 X13
J8 1001-080 D06

X

00070-X ADEF
BE -830-288 X01
DE 2524-927 X01
NL 7507-067 X02
J5 1013-830 X12
FR 2275-463 X15
DD -119-594 X28
BR 7503-829 X30
US 3988-346 X45
ZA 7503-906 Y07
J5 2098-735 Y39+
GB 1512-435 A22
CS 7504-226 A29
CH -602-659 A33
CH -603-590 A37+
J7 8037-252 A44+
CA 1051-440 B14
SU -635-887 B40
DS 2524-927 C13
IT 1040-624 C15
NL -164-276 C32
RO --73-617 D06

04418-X DE
J5 0062-211 X03
J8 1001-358 D06

19119-X DE
DE 2536-283 X11
J5 1022-700 X15
FR 2282-403 X23
GB 1484-957 Y36
J7 8001-079 A06
US 4071-462 A07
IT 1044-649 C26+
DS 2536-283 D06

41760-X D
US 3957-578 X22
BE -837-289 X23
DE 2559-218 X29
J5 1091-387 X39
FR 2296-689 X45
GB 1497-459 A02
SU -606-554 B13
J8 1001-072 D06

46910-X CDE
J5 1051-492 X25
J8 1001-059 D06

48054-X ADH
BE -838-046 X26+
NL 7601-324 X35+
DE 2600-530 X35+
J5 1093-909 X40
NO 7600-410 X40+
SE 7601-460 X40+
FI 7503-581 X44+
DK 7600-500 X44+
J5 1108-003 X45
FR 2300-124 X50+
ZA 7600-344 Y07
PT --65-418 Y27+
DD -128-384 A08+
J7 8031-642 A39
GB 1547-961 B27
GB 1547-962 B27
CA 1080-147 C28
IL --50-142 C31+
AT 7600-918 C49+
HU T019-235 D03+
RO --73-499 D06+

60737-X D
J5 1073-184 X32
J8 1001-074 D06+

72534-X D
DE 2608-815 X39
BE -839-182 X39
NL 7602-371 X39
DS 2608-815 D06

82011-X D
J5 1104-088 X44
J8 1001-071 D06

84200-X CD
J5 1107-967 X45
J8 1001-058 D06

93379-X D
J5 1123-865 X50
J8 1001-051 D06

94671-X ADJ
DE 2624-224 X51
SE 7602-800 Y03
US 4010-374 Y10
FR 2313-118 Y12
CA 1059-092 B33
GB 1552-919 B38
CH -614-864 C02
J5 1145-184 D06
J8 1001-134 D06

95140-X DE
J5 1125-764 X51
J8 1001-066 D06

Y

00133-Y D
DE 2524-628 Y01
DS 2524-628 D06

00324-Y D
DE 2626-035 Y01
SE 7606-618 Y05
FI 7601-694 Y08
BR 7603-766 Y08
FR 2313-872 Y13
GB 1502-455 A09
CA 1092-426 D06

02973-Y DE
J5 1136-897 Y02
J8 1001-067 D06

08346-Y DE
J5 1146-439 Y05
J8 1000-415 D06

09500-Y D
DS 2619-217 Y06
PT --65-762 Y42
SE 7612-523 Y50
PT --65-762 D06+

09700-Y D
DE 2630-287 Y06
SE 7607-730 Y08
J5 2010-440 Y10
CA 1092-433 D06

16467-Y DEF
BE -845-902 Y10+
DE 2539-335 Y12
DE 2539-308 Y12
NL 7609-621 Y12+
DE 2539-367 Y12
SE 7609-755 Y15+
J5 2034-098 Y17+
DK 7603-985 Y21+
FR 2322-963 Y23
CH -606-594 B01+
GB 1565-808 C17+
SE 8006-264 D06+

22309-Y D
GB 1468-469 Y13
CA 1092-507 D06+

24515-Y D
J5 2025-058 Y14
J8 1001-050 D06

27192-Y D
BE -849-238 Y16
DE 2659-006 Y28
FR 2336-885 Y41
GB 1561-539 C08
CA 1084-333 C39
DS 2659-006 D06

29134-Y ADE
BE -847-566 Y17
DE 2647-979 Y18
NL 7611-536 Y19
SE 7611-692 Y22
FR 2328-763 Y30
GB 1519-378 A30
AT 7607-653 B26
CH -619-446 C43
CA 1092-610 D06

29441-Y D
DE 2642-152 Y17
FR 2327-700 Y28
GB 1525-819 A38
US 4246-462 D06

31016-Y D
BE -849-960 Y18
US 4027-672 Y24
NL 7614-205 Y28
DE 2656-482 Y28
DK 7605-765 Y38
FR 2336-916 Y41
BR 7608-700 Y46
PT --65-984 Y49
GB 1502-588 A09
ZA 7607-288 A34
CH -609-539 B16
CA 1092-331 D06

39792-Y D
BE -848-846 Y23
NL 7613-232 Y24
DE 2553-840 Y24
J5 2068-065 Y29
DK 7605-345 Y33
FR 2332-959 Y36
BR 7607-930 Y48
GB 1567-767 C21
DS 2553-840 C22
US 4246-104 D06

43270-Y ADEG
US 4028-261 Y24
CA 1092-740 D06

43409-Y BDJ
BE -849-429 Y25+
DE 2657-150 Y28+
J5 2102-491 Y40
FR 2335-602 Y42+
BR 7608-463 Y51+
GB 1520-733 A32+
CA 1071-711 C10+
US 4200-493 C19+
CA 1088-157 C46+
US 4246-343 D06+

43765-Y ADE
DE 2554-592 Y25
SE 7613-071 Y28
FR 2333-887 Y37
US 4110-075 B16
US 4188-807 C09
GB 1569-697 C25
DS 2554-592 D06

46202-Y DE
J5 2061-297 Y26
J8 1001-068 D06

47337-Y ADE
DE 2658-538 Y27
SE 7614-432 Y31
J5 2080-385 Y33
FR 2336-417 Y43
GB 1520-199 A31
US 4095-018 A32
CH -618-188 C34
DS 2658-538 D06

50149-Y DM
US 4033-763 Y28+
DE 2722-561 A22
NL 7703-772 A23
J5 3064-601 A29
CH -601-465 A33
FR 2371-387 A34
GB 1553-058 B38
GB 1553-057 B38+
CA 1092-360 D06

52571-Y ADF
DE 2700-575 Y30+
J5 2085-283 Y35
FR 2337-738 Y45+
J5 3081-555 A34
US 4134-871 B04+
GB 1572-219 C31+
DS 2700-575 D06+

55773-Y D
US 4038-431 Y31
US 4168-657 B40+
GB 1552-092 B50+
CA 1092-428 D06+

56513-Y BD
J5 2076-484 Y32
J8 1001-079 D06

57439-Y D
US 4039-691 Y32
US 4128-051 A50+
GB 1552-093 B50+
CA 1092-427 D06+

58449-Y DF
J5 2079-560 Y33
J8 1001-149 D06

59735-Y BDJ
DE 2705-859 Y34+
NL 7701-455 Y35+
SE 7701-564 Y38+
NO 7700-446 Y40+
DK 7700-610 Y45+
US 4097-336 A35+
GB 1540-320 B06+
FR 2394-804 B12+
US 4159-923 B29+
US 4162-194 B32+
CA 1076-935 C21+
J8 0027-800 C33+
CA 1086-198 C42+
CA 1086-199 C42+
DK 8002-681 D06+
DK 8002-682 D06+
DK 8002-683 D06+

62116-Y ADEM
J5 2086-974 Y35
J8 1001-147 D06

62894-Y DE
US 4044-034 Y35
US 4117-231 A40+
DE 2725-780 A51+
SE 7706-432 B03+
US 4137-245 B06+
GB 1574-916 C37+
CA 1092-605 D06+

66910-Y D
BE -852-593 Y38
NL 7703-052 Y40
DE 2712-007 Y40
SE 7703-119 Y44
J5 2117-487 Y45
DK 7701-202 Y49
ZA 7607-554 Y50
FI 7700-645 Y51
FR 2344-569 A02
BR 7701-676 A08
US 4077-842 A13
PT --66-299 A16
GB 1527-972 A41
DD -132-269 A46
AT 7701-817 C14
CA 1087-121 C44
RO --73-359 D06

68825-Y ADE
BE -852-765 Y39
DE 2712-514 Y40
NL 7703-149 Y41
J5 2123-393 Y47
FR 2345-513 A03
BR 7701-754 A07
DS 2712-514 A22
GB 1519-433 A30
US 4129-514 A51
AT 7702-075 C05
J8 0021-797 C28
CH -619-001 C39
CA 1086-177 C42
RO --72-707 D06

71238-Y DM
J5 2099-923 Y40
J8 1001-377 D06

75406-Y ABDE
NL 7703-475 Y42
DE 2714-128 Y43
SE 7703-709 Y45
NO 7701-122 Y46
DK 7701-398 Y51
FI 7700-997 Y51
J5 2142-018 A02
FR 2346-367 A04
HU T014-864 A23
DD -133-669 B14+
DE 2759-032 B29+
GB 1553-749 B40
US 4225-592 C42
SU -739-077 D06

75874-Y DE
BE -853-733 Y43
NL 7704-326 Y45
DE 2717-766 Y45
J5 2132-030 Y50
FR 2348-911 A06
US 4125-601 A47
DS 2717-766 B05
GB 1549-752 B32
CA 1074-815 C15
AT 7702-685 C27
J8 0049-088 D02
J5 5149-349 D04
J5 5152-872 D06

75924-Y D
BE -854-563 Y43
NL 7705-297 Y48
DE 2621-312 Y49+
FR 2350-795 A09
US 4091-119 A28
GB 1583-884 D06

81213-Y BCD
BE -854-463 Y46+
NL 7705-141 Y48+
NL 7705-143 Y48+
DE 2720-998 Y48+
DE 2720-999 Y48+
SE 7705-423 Y51+
J5 2136-161 A01
DK 7702-053 A06+
FR 2351-112 A09+
FR 2351-113 A09+
J5 3007-665 A10+
ZA 7702-795 B05
GB 1583-961 D06+
GB 1583-962 D06+

82966-Y BCD
BE -854-775 Y47+
NL 7705-664 Y50+
DE 2722-645 Y50+
SE 7705-855 A02+
DK 7702-258 A08+
FR 2352-828 A11+
US 4083-964 A22+
PT --66-567 A23+
AT 7703-668 A48+
DD -132-503 A50+
ZA 7703-008 B05
CA 1072-031 C11
GB 1578-480 C45+
RO --73-411 D06+

82995-Y BCDE
BE -854-843 Y47
NL 7705-602 Y49
DE 2722-162 Y49
SE 7705-886 A02
NO 7701-770 A03
J5 2151-128 A05
DK 7702-214 A07
FI 7701-602 A08
FR 2360-601 A18
ZA 7703-017 A20
PT --66-581 A23
DD -131-751 A36
AT 7709-431 A48
AT 7703-617 A48
GB 1542-938 B13
US 4147-780 B15
CS 7703-353 C28
CS 7801-917 C28
CA 1081-241 C30
RO --73-647 D06

83192-Y DEM
DE 2621-606 Y47
BE -854-582 Y47
NL 7705-341 Y48
J5 2138-486 A01
SE 7705-568 A01
FR 2351-057 A09
GB 1576-866 C42
US 4246-103 D06

83304-Y D
DE 2721-311 Y47
BE -854-637 Y47
NL 7705-340 Y48
SE 7705-630 A01
NO 7701-699 A02
FI 7701-535 A04
DK 7702-106 A06
BR 7703-103 A08
FR 2350-789 A09
US 4077-090 A13
ZA 7702-872 A20
AT 7703-446 B22
US 4164-057 B35+
AT 7807-503 C10
CH -617-070 C24
GB 1584-011 D06

84220-Y D
NL 7704-854 Y47+
DE 2719-529 Y48+
J5 2135-553 Y51
FR 2350-303 A08+
ZA 7702-501 A20
GB 1583-881 D06+

84795-Y D
BE -857-306 Y48
DE 2733-696 A06
FR 2359-895 A17
DD -131-379 A32
DS 2733-696 C10
GB 1584-035 D06

86595-Y ABCD
BE -855-357 Y49
NL 7706-174 Y51
DE 2725-204 A01
FR 2374-042 A38
US 4182-751 C03
CA 1091-582 D03
GB 1583-889 D06

87383-Y D
J5 2128-260 Y49
US 4072-764 A08
CA 1092-432 D06

90086-Y DF
BE -857-608 Y51
DE 2734-708 A08
NL 7708-487 A09
J5 3021-888 A15
DK 7703-253 A16
FR 2361-079 A19
BR 7704-997 A22
PT --66-812 A35
ZA 7704-047 B14
GB 1566-594 C19
CH -619-600 C47
CA 1092-332 D06

90454-Y DEJ
DE 2723-333 Y51
J5 2144-626 A03
FR 2352-767 A11
BR 7703-415 A11
US 4113-438 A38+
CA 1089-486 C50
GB 1584-001 D06
GB 1584-002 D06

A

00084-A AD
BE -858-128 A01
DE 2638-654 A10
NL 7708-032 A11
DK 7703-380 A18
FR 2362-637 A21
BR 7705-619 A23
AT 7704-942 B13
US 4169-121 B40+
DS 2638-654 C05
GB 1583-974 D06

02075-A

02075-A ABD
BE -856-358 A02
DE 2729-490 A03
NL 7707-449 A05
SE 7607-698 A07
DK 7702-926 A12
FI 7702-012 A12
FR 2357-507 A15
J5 3026-383 A16
GB 1560-850 C07
US 4246-346 D06+

02265-A D
DS 2708-203 A02
DD -129-151 A14+
SE 7702-556 A42+
GB 1530-868 A44
DK 7701-679 A48+
NO 7701-338 A49+
CA 1092-305 D06+

06341-A BD
BE -856-805 A04
DE 2731-570 A05
NL 7707-614 A06
SE 7708-401 A09
J5 3015-495 A13
DK 7703-340 A13
BR 7704-806 A15
FR 2359-203 A16
ZA 7703-934 A25
GB 1538-399 B09
US 4140-578 B09
DD -133-444 B14
DS 2731-570 B31
HU T018-258 C24
AT 7705-312 C31
CA 1088-443 C47
SU -740-156 D06

06375-A D
BE -856-955 A04+
DE 2732-103 A07+
NL 7707-923 A08+
SE 7708-384 A11+
NO 7702-566 A13+
J5 3018-772 A14+
DK 7703-207 A15+
FR 2360-260 A18+
BR 7704-776 A26+
DD -131-128 A32+
PT --66-807 A35+
AT 7605-769 A40
DS 2732-103 B21+
AT 7607-806 B40
GB 1554-971 B44+
HU T018-327 C29+
SU -702-997 C31
AT 7609-248 C41
CA 1089-699 C49+
RO --73-737 D06+

08409-A AD
BE -859-192 A05
DE 2742-683 A14
NL 7710-667 A15
SE 7710-011 A19
J5 3043-710 A22
DK 7704-308 A23
FR 2366-357 A26
BR 7706-399 A33
PT --67-072 A44
ZA 7705-371 B20
PT --67-072 D06

08632-A ADFJ
DE 2731-493 A05+
SE 7708-305 A09+
J5 3011-182 A11
J5 3011-183 A11
FR 2359-239 A16+
US 4127-500 A49+
DS 2731-493 B15+
GB 1584-107 D06+

12326-A AD
BE -859-491 A07+
DE 2745-162 A16+
NL 7710-909 A17+
ZA 7705-925 A25
FR 2366-931 A27+
GB 1567-179 C20+
US 4245-630 D06+

14040-A CDE
BE -857-947 A08+
DE 2737-502 A09+
NL 7709-195 A10+
J5 3038-648 A20+
FR 2361-818 A20+
AT 7705-969 A31+
DD -132-563 A50+
ZA 7705-038 B18
GB 1552-277 B37+
HU T018-322 C29
CS 7705-447 D01+
RO --73-690 D06+

17349-A ABDG
US 4073-291 A09
CA 1092-466 D06

20467-A D
J5 3011-800 A11
FR 2354-048 A12+
US 4182-267 C03
CA 1070-189 C06+
J8 0004-376 C08
GB 1583-996 D06+

23623-A ADJ
DE 2741-486 A13+
J5 3036-590 A20
J5 3039-271 A21
J5 3047-379 A23
J7 9022-225 B35
DS 2741-486 D06+

26959-A D
BE -859-489 A15
DE 2745-312 A16
NL 7711-035 A17
FR 2367-024 A27
BR 7707-542 B25+
GB 1584-065 D06

29538-A D
J5 3025-060 A16
US 4153-544 B21
GB 1584-042 D06

29844-A DM
J5 3026-457 A16
J8 1001-150 D06

33716-A ABD
DE 2746-275 A19+
J5 3054-186 A26
FR 2369-290 A30+
J5 3139-788 B03
US 4246-351 D06+

35737-A D
J5 3037-577 A20
J8 1001-159 D06

36589-A AD
ZA 7703-116 A20
DE 2723-683 A25
FR 2373-277 A37
GB 1579-935 C48
US 4246-257 D06

37326-A DG
J5 3040-006 A21
J8 1001-360 D06

37539-A D
J5 3041-048 A21
J8 1001-152 D06

37546-A D
J5 3041-059 A21
J8 1001-151 D06

38855-A BDE
DE 2752-787 A22
NL 7712-928 A23
J5 3068-754 A30
FR 2371-412 A34
US 4246-292 D06

39452-A ADJ
J5 3044-486 A22
J8 1001-125 D06

39600-A D
J5 3045-054 A22
US 4163-715 B34
J8 1001-148 D06

40781-A D
DE 2753-064 A23
SE 7613-367 A28
NO 7704-039 A29
FR 2371-955 A35
J5 3092-369 A38
CA 1084-182 C36
GB 1578-050 C44
US 4246-102 D06

41082-A D
J5 3046-163 A23
J8 1001-153 D06

42517-A ADF
DE 2753-789 A24
NL 7713-428 A25
J5 3074-127 A32
BR 7707-956 A34
FR 2372-913 A36
US 4145-518 B14
US 4181-640 C03+
US 4188-960 C09+
GB 1568-535 C24
CA 1092-748 D06

42977-A D
J5 3049-858 A24
J8 1001-156 D06

43220-A D
J5 3050-392 A24
J8 1001-073 D06

43224-A BCD
J5 3050-396 A24
J8 1001-075 D06

45823-A AD
BE -862-206 A26
DE 2756-682 A27
NL 7714-278 A28
SE 7713-268 A31
J5 3081-639 A34
DK 7705-765 A35
BR 7708-553 A36
FI 7703-899 A38
FR 2375-112 A39
US 4131-137 B02
AT 7709-212 C23
US 4211-596 C30+
CH -619-641 C47
GB 1583-789 D06

47748-A BCDE
BE -862-459 A27+
US 4089-804 A27
DE 2758-013 A28+
NL 7714-204 A29+
BR 7708-741 A33+
J5 3085-787 A35+
FR 2376-208 A40+
DE 2759-790 C27+
DS 2758-013 D06+

51679-A D
BE -864-854 A29
NL 7803-223 A42
SE 7803-352 A45
DK 7801-359 A46
FR 2385-382 B02
GB 1583-714 D05
CA 1092-396 D06

55432-A DE
DE 2802-821 A31
BE -863-171 A32
NL 7800-754 A32
J5 3105-408 A42
FR 2390-111 B07
FR 2453-609 D06+

55913-A D
J5 3072-783 A31
J8 1000-675 D06

58861-A D
CH -602-498 A33
GB 1568-223 C22+
US 4204-958 C23+
CA 1092-730 D06+

60630-A D
DE 2705-770 A34
FR 2380-020 A46
GB 1545-460 B19
DS 2705-770 C11
US 4246-086 D06

60960-A D
J5 3080-759 A34
J8 1001-160 D06

61239-A D
J5 3082-051 A34
J8 1001-154 D06

62216-A DE
FR 2371-921 A35+
US 4151-304 B19
CA 1092-511 D06+

63444-A D
BE -866-418 A36+
NL 7804-488 A46+
DE 2817-092 A47+
SE 7804-726 A49+
NO 7801-435 A50+
DK 7801-802 A50+
J5 3136-598 B02
BR 7802-539 B02+
FR 2388-513 B05+
PT --67-952 B15+
ZA 7802-383 B20
DE 2857-692 C41+
DS 2817-092 D06

67073-A D
BE -864-990 A38
DE 2725-262 A39
NL 7802-917 A40
FR 2383-613 A51
ZA 7801-561 B46
US 4190-676 C10
AT 7801-812 C49
CA 1092-430 D06

67081-A BCD
BE -865-015 A38
NL 7802-892 A40
DE 2712-160 A40
J5 3116-349 A46
FR 2383-963 A51
AT 7801-910 B44
US 4199-572 C18
GB 1584-138 D06

71078-A D
DE 2809-642 A40
FR 2384-458 B01
BR 7801-848 B02
DD -135-033 B27
AT 7702-098 B48
GB 1583-334 D05
US 4246-290 D06

72706-A BCD
BE -865-578 A41+
NL 7802-976 A42+
DE 2813-922 A43+
DK 7801-436 A46+
NO 7801-076 A47+
J5 3121-702 A48
FI 7800-671 A51+
SE 7803-623 B10+
ZA 7800-915 B14
PT --67-848 B14+
J5 4030-195 B15
FR 2408-608 B34+
FI 8001-352 C40+
AT 7802-245 C41+
AT 8000-189 C44+
SU -738-517 D06

72816-A ADL
BE -867-756 A41
DE 2724-814 A50
NL 7805-924 A51
SE 7806-471 B03
J5 4001-345 B07
FR 2393-020 B10
ZA 7802-935 B25
DS 2724-814 B31
J7 9028-413 B41
US 4239-113 D02
GB 1583-937 D06

73202-A ADE
GB 1527-706 A41
CA 1092-476 D06

79379-A D
NL 7704-170 A44+
AT 7702-519 A40
DE 2718-789 A45+
SE 7704-299 A47+
FR 2390-206 B07+
GB 1540-793 B07+
CA 1092-659 D06+

82515-A DE
DE 2818-126 A46
NL 7804-418 A46
J5 3132-521 B01
GB 1576-673 C42
US 4244-873 D05
US 4246-182 D06

84151-A DE
BE -869-048 A47
FR 2397-841 B17
GB 1583-765 D06

84363-A D
DE 2815-430 A47
J5 3128-153 A50
FR 2387-190 B03
GB 1581-985 D01
US 4246-105 D06

87773-A D
US 4126-710 A48
GB 2000-011 B01
BE -868-438 B02
NL 7806-840 B03
DE 2828-354 B04
FR 2395-710 B14
CA 1092-431 D06

89955-A D
DE 2822-000 A50
NL 7805-527 A50
US 4138-501 B07
FR 2391-653 B09
GB 1583-814 D06

91346-A DE
US 4128-477 A50
WP 8000-832 C19+
EP --22-770 D06+

91709-A D
DE 2823-923 A51
SE 7806-344 B03
FI 7801-715 B08
BR 7803-491 B19
FR 2401-221 B22
CA 1087-124 C44
GB 1584-103 D06

92049-A BD
J5 3130-493 A51
FR 2383-966 A51
DE 2809-897 B06
US 4151-347 B19
CA 1082-696 C33
GB 1583-833 D06

B

02330-B ADEJ
EP -----214 B02
NL 7706-879 B03
J5 4010-296 B09
US 4203-868 C22
EP G000-214 D06

08060-B D
BE -870-645 B05
DE 2841-146 B14
NL 7809-667 B15
GB 2006-047 B18
US 4245-553 D06

08744-B DE
J5 3144-514 B05
US 4188-498 C08
GB 1583-819 D06

10320-B ADE
EP -----604 B06+
BR 7804-600 B21+
J5 4064-646 B27+
EP G000-604 D06+

10332-B ADE
EP -----625 B06
EP G000-625 D06

12217-B D
DE 2735-550 B07
EP ----773 B07
DK 7803-156 B12
NO 7802-669 B13
PT --68-390 B23
EP G000-773 D06

20245-B DE
DE 2830-049 B11
J5 4021-679 B13
US 4246-009 D06

42515-B DJ
DE 2752-296 B23
US 4172-789 B45+
GB 1583-990 D06+

44451-B CDE
FR 2402-654 B24+
DE 2845-833 B25+
GB 2009-747 B25+
NL 7810-596 B26+
J5 4081-273 B32
J5 4151-978 C02
US 4246-178 D06

51403-B BD
J5 4067-092 B28
J8 1001-070 D06

51404-B BDE
J5 4067-093 B28
J8 1001-077 D06

54938-B ADF
EP ---3-186 B30+
J5 4104-962 B39
J5 4104-963 B39
US 4245-744 D06

58294-B BD
DE 2804-138 B32
PT --69-006 B32
NL 7900-058 B33
EP ---3-544 B34
DK 7900-381 B37
NO 7900-291 B38
SE 7900-552 B38
FI 7803-860 B43
J5 4122-738 B44
ZA 7807-204 C07
DS 2804-138 C16
DD -141-258 C40
US 4246-256 D06

61398-B D
US 4162-693 B33
BE -875-599 B43+
ZA 7901-719 C21+
DE 2915-097 C43+
NL 7902-817 C44+
BR 7902-248 C46+
GB 2046-069 C46+
SE 7903-239 C48+
FI 7901-224 D01+
FR 2453-792 D06+

71832-B BDJ
BE -876-662 B40
DE 2921-975 B50
GB 2022-247 B50
NL 7904-308 B51
SE 7806-296 C04
J5 5013-893 C11
FR 2427-603 C11
US 4246-340 D06

73499-B AD
US 4169-050 B40
BR 7904-351 D06+

73554-B D
US 4169-164 B40
BE -877-701 B46
NL 7905-357 D06+

73838-B BDJ
DE 2911-481 B41+
J5 4126-791 B45
DK 7901-196 B45
GB 2020-018 B45+
SE 7902-648 B46+
FR 2420-760 C02+
J5 5013-068 C10
FR 2436-182 C26+
GB 2043-650 C41+
US 4246-342 D06+

78496-B ABDJ
NL 7902-663 B43+
DE 2913-551 B44+
GB 2019-562 B44+
WP 7900-882 B45+
SE 7910-042 C07+
FR 2435-716 C25+
EP --22-768 D06+

80779-B CDEH
US 4172-140 B44
EP --19-670 C51+
J5 5154-906 D06+

83964-B AD
US 4173-127 B46
CA 1092-384 D06

84723-B DE
J5 4115-360 B47
J5 4115-360 B42
DE 2912-762 C42+
GB 2046-243 C46+
US 4239-920 D02+
FR 2453-843 D06+

86187-B ADE
DE 2918-979 B48
GB 2021-425 B49
US 4246-417 D06

87781-B D
DS 2833-348 B49
EP ---7-419 C06
BE T000-076 C30
NL 7915-048 C37
GB 2049-724 D01
FR 2453-900 D06

87939-B DE
DE 2920-163 B49
J5 4151-141 C02
GB 2026-052 C05
FR 2425-850 C09
DS 2920-163 D06

89886-B ABD
GB 1551-388 B50
CA 1092-512 D06

91194-B AD
DS 2834-121 B51
EP ---8-032 C09
J5 5023-193 C14
BR 7904-953 C21
US 4245-996 D06

C

00106-C DE
DE 2826-120 C01
EP ---6-162 C02
FI 7901-842 C09
J5 5059-123 C24
DS 2826-120 C25
US 4246-431 D06

00173-C D
DE 2918-253 C01
US 4245-373 D06

11147-C DJ
BE -877-839 C07
GB 2053-019 D06+

13241-C BDE
DE 2834-122 C08
EP ---8-031 C09
J5 5023-999 C14
US 4246-345 D06

18720-C D
DE 2857-125 C11+
DS 2857-125 D06+

18918-C AD
GB 2028-855 C11+
WP 8000-409 C13
EP --22-772 D06

27732-C DE
EP ---9-942 C16
J5 5050-097 C21
NO 7903-149 C22
BR 7906-259 C31
PT --70-256 D06

27748-C AD
EP ---9-977
J5 5050-355
DK 7904-169
NO 7903-186
FI 7903-034
BR 7906-404
PT --70-278

29218-C AD
BE -880-554
WP 8001-455
NO 8000-067
FI 8000-048
FR 2446-357
EP --22-792

29672-C ABD
DE 2941-881
GB 2033-399
DK 7904-363
US 4206-259
J5 5092-688
FR 2453-898

31080-C DE
WP 8000-694
DK 7804-156
EP --22-784

31914-C ABD
J5 5039-731
J8 1001-061

35068-C DE
DE 2944-020
NL 7908-002
EP --10-961
NO 7903-500
DK 7904-602
GB 2037-162
FI 7903-352
BR 7907-104
FR 2440-190
J5 5094-313
PT --70-399

40016-C DE
BE -881-097
WP 8001-457
EP --22-801

41509-C D
BE -881-188
DE 2901-509
WP 8001-484
SE 8006-491
NL 8020-006
EP --22-809
GB 2053-183

43314-C DJM
BE -881-417
PT --70-738
WP 8001-563
FI 8000-250
SE 8006-649
NL 8020-027
NO 8002-849
BR 7900-702
EP --22-839

43602-C AD
DE 2853-243
EP --12-295
DK 7904-762
NO 7903-614
FI 7903-510
GB 2042-901
DE 2857-751

45019-C BCD
US 4207-326
EP --20-077
J5 5154-958

45271-C DJ
DE 2854-168
FR 2443-869
GB 2043-479
J5 5116-412
DS 2854-168

-C D
001-240 C28
-20-740 D03
245-988 D06

-C D
915-341 C29
046-116 C46
002-372 C49
453-687 D06

-C ADJ
001-464 C32
-14-054 C33
-22-827 D06

-C ABDE
881-494 C33
-70-721 C32
000-446 C51
014-045 C51
049-419 D01
000-039 D05
000-131 D06

-C ADF
882-439 C33
924-539 D03
003-406 D04
053-302 D06+

-C DE
882-672 C34
002-069 C44
011-015 C45
046-568 C47
001-686 C48
138-362 C50
453-608 D06
246-286 D06

-C D
882-717 C35
453-637 D06

-C CDEH
382-719 C35
002-122 C44
214-802 C45
046-725 C47
002-619 C48
001-392 C49
453-589 D06

C D
882-745 C35
014-046 C43
002-128 C44
453-832 D06

C BDE
05-409 C35+
08-291 C40
53-596 D06

C D
07-257 C36
43-475 C41+
53-668 D06+

C CD
5-637 C39
70-803 C36
00-885 C43
00-250 D05
53-568 D06

ADE
5-887 C39
52-862 D06

D
2-266 C39
2-723 C11
6-098 D06

AD
3-402 C40
6-794 C43
9-075 C49
2-675 C50
3-105 D03
5-096 D06

69605-C D
BE -883-456 C40
DE 3019-587 C49
NL 8002-389 C50
PT --71-227 C51
GB 2049-392 D01
NO 8001-075 D04
BR 8003-232 D04
SE 8002-816 D05
DK 8001-814 D06

71573-C DF
WP 8001-920 C40
SE 7902-216 C44
NO 8003-406 D06

71575-C CD
WP 8001-922 C40
EP --17-274 C44
NO 8003-429 D06

71646-C ABCD
BE -883-579 C41
DE 3020-614 D06

72017-C BCDK
EP --16-594 C41
J5 5153-800 D06

72192-C D
GB 2043-860 C41
DE 2928-201 D06+

73500-C AD
BE -883-646 C42
WP 8002-641 D02
SE 7904-938 D06

73516-C D
BE -883-718 C42
DE 3021-582 D01
NL 8003-314 D02
BR 8003-533 D05
NO 8001-691 D06

73528-C DF
DD -143-141 C42
DE 2952-105 C51
SE 8003-800 D06

75328-C BCD
BE -882-684 C43
DE 3009-064 C44
GB 2048-066 C50
FR 2453-651 D06

75330-C D
BE -882-689 C43
NL 8002-050 C44
DE 3012-924 C45
GB 2045-772 C45
DK 7901-456 C49
DK 8001-222 C49
FI 8001-072 D01
FR 2453-897 D06

75331-C D
BE -882-690 C43
NL 8002-082 C44
DE 3013-207 C44
GB 2045-773 C45
SE 8002-643 C48
DK 7901-457 C49
DK 8001-428 C49
FI 8001-029 D01
FR 2453-896 D06

75366-C D
BE -883-829 C43+
PT --71-369 D02+
NL 8003-366 D03+
EP --21-247 D04+
DS 2924-283 D05
BR 8003-668 D06+

75564-C ABD
DE 2930-859 C43
GB 2046-271 C46
J5 5135-591 C49
FR 2453-899 D06

75619-C D
DE 3013-627 C43
GB 2047-710 C49
FI 8001-137 D01
J5 5144-886 D03
US 4243-752 D04
FR 2453-895 D06

77017-C ABD
WP 8002-158 C43
US 4246-344 D06

77325-C BDE
DE 3013-701 C44
J5 5136-257 C49
GB 2047-711 C49
FR 2453-845 D06

77557-C D
EP --17-595 C44
J5 5141-406 C51
FR 2453-638 D06

78243-C BD
NL 8001-676 C44
GB 2046-272 C46
J5 5141-500 C51
FR 2453-894 D06

79104-C DG
DE 3013-510 C45
GB 2049-058 C51
FR 2453-973 D06

79107-C D
DE 3013-575 C45
GB 2047-647 C49
BR 8002-263 C51
FR 2453-604 D06

79115-C D
DE 3013-892 C45
GB 2049-380 C51
FR 2453-830 D06

79122-C DF
DE 3014-040 C45
GB 2045-821 C45
SE 8002-768 C48
FR 2453-920 D06

80122-C BD
NL 8002-210 C45+
PT --71-091 C47+
SE 8002-827 C49+
GB 2047-700 C49+
J5 5139-380 C50
DK 8001-618 C50+
BE -885-186 D05
DE 3014-434 D06+

80741-C AD
BE -884-181 C46+
NL 8003-714 D05+
DE 3023-461 D05+
PT --71-491 D06+
GB 2052-984 D06+

80748-C D
BE -884-194 C46
NL 8004-020 D06
DE 3025-594 D06

82639-C AD
BE -883-107 C47
DE 3017-017 C48
GB 2050-393 D02
J5 5152-796 D06

82659-C AD
BE -884-265 C47
NL 8003-557 D06

82662-C ADG
BE -884-287 C47
PT --71-480 D06

82813-C D
DE 2918-899 C47
GB 2048-047 C50+
J5 5153-558 D06+

82993-C ABD
EP --18-628 C47
DE 2917-999 C47
J5 5153-600 D06

83011-C DE
EP --18-679 C47
US 4246-129 D06

83055-C BD
EP --18-795 C47
NO 8001-214 C50
J5 5145-617 D03
FI 8001-342 D05
DK 8001-803 D06

84365-C BDE
BE -883-322 C48
NL 8002-627 C49
DE 3018-584 C49
SE 8003-630 D03
GB 2051-053 D03
J5 5153-595 D06

84516-C BD
DS 2923-279 C48
PT --71-136 C47
EP --21-129 D04
NO 8001-690 D06

84716-C DE
DE 3011-714 C48
NL 8002-583 C49
GB 2052-263 D05
J5 5153-587 D06

84727-C D
DE 3015-088 C48
GB 2048-051 C50
DK 8001-909 D01
NO 7901-481 D01
SE 8003-070 D02
J5 5153-551 D06

86374-C ADEF
BE -883-414 C49
NL 8002-926 C50
DE 3019-076 C50
NO 8001-494 D03
SE 8003-768 D04
BR 8003-149 D04
DK 8002-203 D06
GB 2053-249 D06+

86394-C DE
BE -884-057 C49
WP 8100-106 D06

86397-C BD
BE -884-456 C49
PT --71-612 D06

86634-C ADE
DE 3018-884 C49
US 4237-288 C51
GB 2049-389 D01
J5 5153-786 D06

86728-C BD
EP --19-162 C49
DE 2919-984 C49
J5 5153-598 D06

86732-C ADE
EP --19-173 C49
DE 2918-826 C49
J5 5152-798 D06

86749-C AD
EP --19-214 C49
J5 5155-014 D06

86751-C ACDE
EP --19-216 C49
DE 2920-526 C50
J5 5155-706 D06

86753-C BD
EP --19-218 C49
NO 8001-443 D02
DK 8002-125 D03
J5 5153-723 D06

86784-C BD
EP --19-302 C49
DK 8002-228 D06

86862-C ADE
EP --19-484 C49
J5 5155-098 D06

88073-C D
US 4233-709 C49
DE 3021-260 C51
NL 8003-251 D02
GB 2051-551 D04
BR 8003-480 D05
SE 8004-096 D06

88368-C BD
BE -883-564 C50
NL 8003-171 C51
DE 3020-528 D01
GB 2052-516 D05+
SE 8004-066 D06

88489-C ACDE
DE 2920-914 C50
EP --20-904 D04
DK 8002-245 D06

88514-C D
DE 2921-236 C50
NL 8003-019 C50
SE 8003-881 D05
DK 8002-278 D06
GB 2053-373 D06

90143-C D
BE -883-600 C51
NL 8003-226 D02
GB 2050-801 D03
NO 8001-648 D05
BR 8003-456 D05
SE 8004-128 D06

90551-C ADF
EP --19-822 C51
NO 8001-495 D03
DK 8002-204 D06

90704-C BD
EP --20-251 C51+
DK 8002-266 D06+

D

00069-D D
DE 2923-577 D01
NL 8003-400 D03
GB 2052-458 D06

00215-D D
DE 3014-549 D01
PT --71-137 C47
GB 2052-800 D05
SE 8003-561 D06

00288-D ADJ
DE 3022-008 D01
NL 8003-422 D03
BR 8003-730 D06

01233-D AD
NL 8003-241 D02
US 4243-802 D04
DE 3020-689 D05
GB 2053-225 D06

02022-D DE
BE -883-947 D03+
NL 8003-472 D04+
DE 3022-767 D04+
BR 8003-866 D06+

02246-D DJ
DE 3016-306 D03
GB 2053-024 D06

02290-D D
DE 3023-110 D03
BE -883-939 D03
NL 8003-576 D04
GB 2052-946 D06

02329-D ABDK
DE 3024-282 D03
GB 2053-233 D06

02527-D DE
EP --21-799 D03
BR 8003-864 D06

02611-D D
EP --22-019 D03
BR 8003-974 D06

03727-D BD
BE -884-012 D04
EP --22-242 D05
DE 3023-627 D05
PT --71-487 D06
WP 8100-114 D06

03860-D D
DE 2926-739 D04
NL 8003-764 D05
GB 2052-949 D06

03919-D D
DE 2928-525 D04
NL 8003-694 D06

03956-D AD
DE 3022-789 D04
GB 2052-945 D06

04169-D BD
EP --21-311 D04
DE 2924-875 D06

04187-D DE
EP --21-356 D04
DE 2925-622 D05
BR 8003-937 D06

04350-D ADJ
GB 2051-842 D04
DE 2925-969 D06+

05082-D CD
NL 8003-591 D04
DE 3022-723 D06
GB 2053-214 D06

05690-D CDE
BE -884-020 D05
NL 7905-111 D05
NL 8003-600 D05
DE 3023-968 D06

05713-D DE
BE -884-206 D05
NL 8003-759 D06

05715-D DE
BE -884-208 D05
NL 8003-907 D06
DE 3024-912 D06

05721-D D
BE -884-224 D05
NL 8003-922 D06
DE 3026-193 D06
GB 2053-228 D06

05725-D DE
BE -884-232 D05
NL 8003-960 D06
DE 3025-991 D06

05726-D DE
BE -884-233 D05
NL 8003-963 D06
DE 3025-992 D06

05741-D BCD
BE -884-291 D05
NL 8003-970 D06
US 4246-400 D06
DE 3026-425 D06
GB 2053-221 D06

05840-D BCD
DE 2925-963 D05
GB 2053-216 D06

05850-D D
DE 2926-543 D05
PT --71-466 D02
WP 8100-041 D06

05896-D D
DE 2929-496 D05
PT --70-617 C28
EP --22-901 D06

05927-D ADG
DE 3022-924 D05+
BR 8003-827 D06+

05942-D DE
DE 3023-402 D05+
GB 2052-977 D06+

06046-D ADE
EP --22-284 D05
BR 8003-580 D05
NO 8001-728 D06

06110-D ABD
EP --22-434 D05
WP 8100-113 D06

06149-D DE
EP --22-525 D05
DE 2927-911 D06

06150-D DE
EP --22-526 D05
DE 2927-912 D06

06178-D D
EP --22-570 D05
DE 2928-428 D06

06192-D D
EP --22-602 D05
NL 7905-494 D06

06239-D BCD
EP --22-696 D05
BR 8003-973 D06

07729-D D
US 4245-043 D05
WP 8100-115 D06

07734-D D
US 4245-052 D05
WP 8100-063 D06

07781-D ABD
BE -884-301 D06

07786-D ABD
BE -884-317 D06

07797-D BCD
BE -884-379 D06

07803-D BCD
BE -884-399 D06+

07809-D ADE
BE -884-417 D06

07832-D D
BE -885-314 D06

07836-D D
BE -885-335 D06

07838-D AD
CA 1092-303 D06+

07839-D D
CA 1092-306 D06

07844-D D
CA 1092-429 D06

07859-D D
DE 2925-821 D06

07865-D D
DE 2926-349 D06+
AT 7904-048 D06

07871-D BCD
DE 2927-462 D06

07872-D D
DE 2927-507 D06

07873-D DEJ
DE 2927-615 D06

07882-D DJ
DE 2927-701 D06

07889-D AD
DE 2928-040 D06

07890-D BD
DE 2928-041 D06

07895-D D
DE 2928-093 D06

07896-D DE
DE 2928-098 D06

07908-D ADEG
DE 2928-287 D06

07911-D DEJ
DE 2928-324 D06

07922-D D
DE 2928-540 D06

07933-D D
DE 2928-680 D06

07942-D D
DE 2929-139 D06

07945-D BD
DE 2929-278 D06

07949-D D
DE 2929-486 D06

07958-D D
DE 2929-823 D06

07967-D D
DE 2930-324 D06

08010-D DK
DE 3024-473 D06

08015-D DEFH
DE 3024-911 D06+
GB 2052-989 D06+

08024-D ABDE
DE 3025-437 D06

08036-D D
DE 3025-677 D06

08053-D BCD
DE 3026-408 D06+

08055-D ACDF
DE 3026-431 D06+

08062-D BD
DE 3027-380 D06

BE -884-385 D06

08067-D D
DS 2946-884 D06

08073-D D
DS 3020-269 D06

08075-D ACDF
EP --22-881 D06

08083-D CDFG
EP --22-900 D06
DE 2927-349 D06

08086-D CD
EP --22-910 D06+
BR 8003-279 D04+

08099-D D
EP --22-947 D06

08102-D BDE
EP --22-955 D06

08107-D CD
EP --22-964 D06
PT --71-483 D06

08113-D BD
EP --22-973 D06

08127-D D
EP --22-989 D06
DE 2928-250 D06

08128-D DE
EP --22-996 D06

08130-D ADE
EP --22-998 D06

08134-D D
EP --23-008 D06

08137-D

08137-D DL
EP --23-013 D06

08152-D ADE
EP --23-040 D06
DE 2929-813 D06

08154-D AD
EP --23-044 D06

08165-D D
EP --23-062 D06

08175-D ADH
EP --23-084 D06
BR 8003-981 D06

08192-D ADJ
EP --23-111 D06

08205-D D
EP --23-150 D06+

08206-D D
EP --23-151 D06+

08207-D D
EP --23-152 D06+

08211-D BCDL
EP --23-161 D06+

08215-D DEH
EP --23-176 D06+

08225-D D
EP --23-196 D06

08226-D DEH
FR 2453-588 D06

08228-D D
FR 2453-605 D06

08229-D CD
FR 2453-607 D06

08245-D D
FR 2453-831 D06

08250-D DJ
FR 2453-893 D06

08256-D DF
FR 2453-935 D06
SE 7903-177 C48
NO 8001-000 C48
FI 8001-098 D01

08260-D DE
FR 2453-999 D06

08265-D D
FR 2454-070 D06

08266-D D
FR 2454-088 D06

08267-D D
FR 2454-140 D06

08274-D CD
GB 1583-751 D06+

08282-D AD
GB 1583-912 D06

08291-D ADE
GB 1584-127 D06

08296-D DE
GB 2052-973 D06

08298-D BD
GB 2052-978 D06

08301-D D
GB 2052-993 D06

08324-D DH
GB 2053-182 D06

08329-D DE
GB 2053-199 D06+

08330-D DE
GB 2053-201 D06+

08334-D ABCD
GB 2053-220 D06

08372-D AD
J5 5089-306 D06

08377-D DJ
J5 5090-856 D06

08388-D BD
J5 5143-996 D06

08400-D D
J5 5152-799 D06

08401-D DF
J5 5152-800 D06

08437-D D
J5 5153-549 D06

08438-D D
J5 5153-552 D06

08439-D D
J5 5153-554 D06

08440-D D
J5 5153-555 D06

08441-D D
J5 5153-561 D06

08442-D D
J5 5153-571 D06

08443-D D
J5 5153-572 D06

08444-D D
J5 5153-591 D06

08445-D BD
J5 5153-592 D06

08446-D ABD
J5 5153-594 D06

08447-D BD
J5 5153-597 D06

08482-D DE
J5 5153-708 D06

08483-D DE
J5 5153-709 D06

08484-D D
J5 5153-710 D06

08485-D AD
J5 5153-711 D06

08600-D DE
J5 5154-305 D06

08648-D BD
J5 5154-464 D06

08712-D CDEF
J5 5154-905 D06

08713-D ACDF
J5 5154-908 D06

08714-D DEG
J5 5154-909 D06

08716-D ABD
J5 5154-911 D06

08717-D DE
J5 5154-912 D06

08719-D BD
J5 5154-916 D06

08725-D DE
J5 5154-929 D06

08734-D DE
J5 5154-940 D06

08735-D BDE
J5 5154-941 D06

08736-D BDE
J5 5154-942 D06

08750-D BCD
J5 5154-982 D06

08817-D AD
J5 5155-097 D06

08851-D ABD
J5 5155-643 D06

08853-D D
J5 5155-702 D06

08854-D ADJ
J5 5155-703 D06

08855-D ADJ
J5 5155-704 D06

08856-D ADJ
J5 5155-705 D06

08857-D D
J5 5155-707 D06

08858-D D
J5 5155-708 D06

08859-D D
J5 5155-709 D06

08861-D D
J5 5155-713 D06

08862-D D
J5 5155-714 D06

08863-D D
J5 5155-715 D06

08880-D DE
J5 5155-736 D06

08889-D D
J5 5155-777 D06

08890-D D
J5 5155-778 D06

08891-D DE
J5 5155-785 D06

08892-D D
J5 5155-786 D06

08893-D CD
J5 5155-789 D06

08894-D D
J5 5155-790 D06

08895-D D
J5 5155-792 D06

08896-D CD
J5 5155-797 D06

08897-D D
J5 5155-798 D06

08940-D D
J8 1000-440 D06
J4 9118-866 D06

08953-D CDEG
J8 1000-580 D06+

08959-D DEG
J8 1000-790 D06
J5 3141-600 D06

08978-D D
J8 1001-158 D06
J5 2098-356 D06

08985-D BD
J8 1001-289 D06
J5 0035-308 D06

08998-D AD
NL 7905-285 D06

08999-D D
NL 7905-305 D06

09003-D DE
NL 8003-504 D06

09008-D BCD
NL 8003-889 D06
GB 2052-983 D06

09011-D BD
NL 8003-985 D06+

09056-D D
SU -737-831 D06

09057-D D
SU -737-832 D06

09066-D CD
SU -738-571 D06

09067-D D
SU -738-572 D06

09068-D D
SU -738-573 D06

09069-D D
SU -738-574 D06

09070-D D
SU -738-575 D06

09071-D D
SU -738-576 D06

09072-D D
SU -738-577 D06

09073-D D
SU -738-578 D06+

09074-D D
SU -738-579 D06

09075-D D
SU -738-580 D06

09076-D D
SU -738-581 D06

09077-D AD
SU -738-582 D06

09079-D CD
SU -738-584 D06

09080-D BCD
SU -738-585 D06

09081-D D
SU -738-586 D06

09082-D D
SU -738-587 D06

09083-D D
SU -738-588 D06

09084-D D
SU -738-589 D06

09085-D D
SU -738-590 D06

09086-D D
SU -738-616 D06

09097-D D
SU -738-638 D06

09107-D DJ
SU -738-648 D06

09108-D DJ
SU -738-649 D06

09110-D DEJ
SU -738-651 D06

09218-D D
SU -738-905 D06

09222-D D
SU -738-946 D06

09224-D D
SU -738-955 D06

09225-D D
SU -738-957 D06

09231-D DE
SU -738-995 D06

09235-D ADJ
SU -738-999 D06

09236-D DJ
SU -739-000 D06

09237-D D
SU -739-001 D06+

09238-D ADE
SU -739-002 D06

09239-D DEJM
SU -739-003 D06

09240-D D
SU -739-004 D06

09241-D D
SU -739-005 D06

09242-D DE
SU -739-006 D06

09243-D DE
SU -739-007 D06

09259-D DL
SU -739-023 D06

09290-D DE
SU -739-055 D06

09292-D DE
SU -739-057 D06

09313-D DEH
SU -739-082 D06

09316-D D
SU -739-085 D06

09317-D D
SU -739-086 D06

09318-D D
SU -739-087 D06

09319-D D
SU -739-088 D06

09320-D D
SU -739-089 D06

09321-D D
SU -739-090 D06

09322-D D
SU -739-091 D06

09323-D D
SU -739-092 D06

09324-D D
SU -739-093 D06

09325-D D
SU -739-094 D06

09326-D D
SU -739-095 D06

09327-D BD
SU -739-096 D06

09328-D D
SU -739-097 D06

09329-D D
SU -739-098 D06

09330-D D
SU -739-099 D06

09331-D D
SU -739-100 D06

09332-D D
SU -739-101 D06

09333-D BD
SU -739-102 D06

09334-D D
SU -739-103 D06

09335-D D
SU -739-104 D06

09336-D D
SU -739-105 D06

09337-D D
SU -739-106 D06

09338-D D
SU -739-107 D06

09406-D CDEH
SU -739-218 D06

09409-D BD
SU -739-381 D06

09415-D D
SU -739-405 D06

09416-D D
SU -739-406 D06

09417-D D
SU -739-407 D06

09425-D CD
SU -740-204 D06

09430-D ABDJ
SU -740-234 D06

09432-D D
SU -740-236 D06

09433-D BDE
SU -740-248 D06

09434-D BCD
SU -740-249 D06

09436-D BD
SU -740-251 D06

09437-D D
SU -740-252 D06

09442-D D
US 4245-372 D06

09445-D ACD
US 4245-396 D06+

09457-D ADJ
US 4245-494 D06

09463-D D
US 4245-552 D06+

09465-D D
US 4245-570 D06+

09471-D D
US 4245-613 D06

09472-D D
US 4245-615 D06

09506-D D
US 4245-936 D06
ZA 8000-255 D05

09509-D D
US 4245-973 D06

09555-D BDJ
US 4246-084 D06

09560-D D
US 4246-099 D06+

09561-D DE
US 4246-100 D06

09562-D D
US 4246-101 D06+

09566-D D
US 4246-111 D06+

09567-D D
US 4246-112 D06+

09568-D D
US 4246-113 D06

09569-D D
US 4246-114 D06

09572-D DJ
US 4246-119 D06

09578-D DE
US 4246-131 D06+

09597-D BCD
US 4246-179 D06+

09598-D D
US 4246-184 D06+

09605-D DE
US 4246-194 D06+

09632-D CD
US 4246-258 D06

09640-D DE
US 4246-285 D06

09641-D BDE
US 4246-287 D06+

09643-D D
US 4246-289 D06

09644-D D
US 4246-291 D06

09645-D D
US 4246-293 D06

09647-D ADK
US 4246-295 D06

09663-D BD
US 4246-339 D06

09664-D ABD
US 4246-341 D06+

09665-D DE
US 4246-347 D06+

09666-D BD
US 4246-348 D06

09667-D BD
US 4246-349 D06

09668-D ABD
US 4246-350 D06

09669-D DK
US 4246-352 D06

09709-D D
WP 8100-039 D06

09710-D D
WP 8100-040 D06

09711-D AD
WP 8100-047 D06

09712-D D
WP 8100-049

09713-D ABD
WP 8100-050

09714-D ADE
WP 8100-051

09720-D DE
WP 8100-061

09727-D ADJ
WP 8100-092

09728-D D
WP 8100-101

09729-D D
WP 8100-102

09734-D BD
WP 8100-116

904
8 07865D D12Q3Q7+P3

884
1 07781D A96B04D22P3
7 07786D A97B07D13
9 07797D B02C02D22
5 08062D B02D16
9 07803D B04C03D13
7 07809D A96D21E24

885
4 07832D D13
5 07836D D22P2

904
1 73499B A93D15
2 D D13
1 D D14Q3

003
9 08086D C02D16
8 75366C D16
0 00288D A97D17J01
7 05927D A97D15G04
4 02527D D25E19
6 02022D D25E19
7 04187D D23E15
3 06239D B04C03D13
4 02611D D13
1 08175D A97D15H03Q6

006
8 D D16
9 D D16

092
3 07838D A96D22P3
5 02265A D12
6 07839D D12
1 31016Y D22P2+P7
2 90086Y D22F04P2
0 50149Y D15M25
4 83964B A88D14Q7
6 51679A D21P3
6 00324Y D13
7 57439Y D12
8 55773Y D13
9 07844D D13X27
0 67073A D13
1 87773A D13
2 87383Y D13
3 09700Y D13
5 17349A A96B05D21G03P3
5 73202A A97D25E34
7 22309Y D15
1 62216A D21E13
2 89886B A96B06D21
6 62894Y D21E16
0 29134Y A96D21E16
9 79379A D13+P4R5
0 58861A D15
0 43270Y A82D25E37G02
3 42517A A23D18F01+P1

857
43602C A96D22P3

924
04169D B04D16

925
07859D D12
04350D A88D15J01

*6
07865D D12Q3Q7+P3

*7
08083D C03D22F09G02P6
07871D B02C02D22
07872D D12P6
07873D D15E36J04S03R1
07882D D15J01
06149D D15E37
06150D D15E37

*8
07889D A96D21
07890D B07D21
07895D D15
07896D D23E15
72192C D18Q7
08127D D11P4
07908D A60D21E17G01
07911D D15E36J03S03R1
06178D D12
07922D D15
07933D D13

*
07942D D15

DE 2929
*278 07945D B04D22
*486 07949D D15Q7
=813 08152D A88D15E36P3+Q3
*823 07958D D13S02T06X25R1

DE 2930
*324 07967D D22P3

DE 3014
=434 80122C B02D16

DE 3020
=614 71646C A97B04C03D13

DE 3022
=723 05082D C03D16

DE 3023
=612 06361D C01D22E19F09+P6
=968 05690D C03D15E36

DE 3024
*473 08010D D15K06S03R1
*911 08015D D22E16F09H08
=912 05715D D25E16

DE 3025
*437 08024D A60B04D16E36
=594 80748C D13
*677 08036D D16
=991 05725D D21E14
=992 05726D D21E14

DE 3026
=193 05721D D13
*408 08053D B02C01D13
=425 05741D B03C02D16
*431 08055D A60C03D22F09

DE 3027
*380 08062D B02D16

DK 7902
*077 D D13J02

DK 8001
=803 83055C B04D16S03R1
=814 69605C D12P3

DK 8002
=203 86374C A87D25E19F06
=204 90551C A83D22F07S05P2
=228 86784C B05D16
=245 88489C A97C04D15E36
=266 90704C B04D16
=278 88514C D14Q3+Q5R1
=681 59735Y B04D16J04S03R1
=682 59735Y B04D16J04S03R1
=683 59735Y B04D16J04S03R1

DS 1930
=887 43635Q A97D12

DS 2055
=287 40711S D13

DS 2121
=577 74203S D11+Q3

DS 2140
=404 12909U A96D21G02

DS 2156
=585 39733T D13

DS 2217
=692 65752U C04D25E11M11

DS 2259
=830 45553V D25

DS 2524
=628 00133Y D12+Q3

DS 2536
=283 19119X D25E34

DS 2554
=592 43765Y A97D25E12+P4

DS 2608
=815 72534X D12Q7

DS 2658
=538 47337Y A60D21E14+P3

DS 2659
=006 27192Y D12

DS 2700
=575 52571Y A14D15F09+P7

DS 2741
=486 23623A A88D15J01

DS 2758
=013 47748A B05C03D25E16

DS 2817
=092 63444A D18P1

DS 2854
=168 45271C D15J01+P7

DS 2857
=125 18720C D11

DS 2920
=163 87939B D21E17

DS 2946
*884 08067D D16P1

DS 3020
*269 08073D D25

EP --22
=768 78496B A96B04D16J04R1
#770 91346A D15E37
=772 18918C A96D21
=784 31080C D16E17+P1
=792 29218C A96D22F07P3+P7
=801 40016C D22E36P3+Q3
=809 41509C D15
=827 56873C A88D15J01
=839 43314C D15J01M11
*881 08075D A97C03D13F09
*900 08083D C03D22F09G02P6
=901 05896D D11
*910 08086D C02D16
*947 08099D D13
*955 08102D B05D23E17
*964 08107D C02D16
*973 08113D B02D16
*989 08127D D11P4
*996 08128D D21E19
*998 08130D A97D25E34

EP --23
*008 08134D D14
*013 08137D D21L01
*040 08152D A88D15E36P3+Q3
*044 08154D A88D12P5
*062 08165D D13
*084 08175D A97D15H03Q6
*111 08192D A88D15J01X12R4
*150 08205D D13
*151 08206D D13
*152 08207D D13
*161 08211D B04C03D13L02
*176 08215D D16E17H06
*196 08225D D22P3

EP G000
=214 02330B A35D15E36J01
=604 10320B A96D21E19
=625 10332B A88D18E31P1
=773 12217B D22P3

FI 8001
=098 08256D D15F09

FR 2453
*588 08226D D16E17H09P1
=589 60520C C04D16E17H09+P1
=604 79107C D11+Q3
*605 08228D D12

*607 08229D C03D13
=608 58788C D13E14
#609 55432A D13E19
=637 60518C D22P3
=638 77557C D21
=651 75328C B04C03D13
#668 62659C D15+P4
=687 49934C D15Q4+P4
#792 61398B D12+Q3
=830 79115C D15X27P1
*831 08245D D15
=832 60528C D15+P4
#843 84723B D22E14
=845 77325C B05D13E14
*893 08250D D23J01
=894 78243C B04D16
=895 75619C D16
=896 75331C D16
=897 75330C D16
=898 29672C A96B04D16+P7
=899 75564C A96B04D16
=900 87781B D17
=920 79122C D22F03+P3
*935 08256D D15F09
=973 79104C D15G04X15Q7
*999 08260D D16E17Q5

FR 2454
*070 08265D D11Q7
*088 08266D D14R1
*140 08267D D14T05R2

GB 1583
*751 08274D C03D13
=765 84151A D22E14P3
=789 45823A A92D12+P7Q3Q6
=814 89955A D13
=819 08744B D23E17
=833 92049A B04D16
=881 84220Y D15
=884 75924Y D13X25X26R5
=889 86595Y A97B04C03D16
*912 08282D A88D18
=937 72816A A96D22L02P3+Q3
=961 81213Y B02C02D16
=962 81213Y B02C02D16
=974 00084A A96D22P3
#990 42515B D15J01
*991 D D13
=996 20467A D15P1

GB 1584
=001 90454Y D25E19J04
=002 90454Y D25E19J04
=011 83304Y D12Q3
=035 84795Y D16
=042 29538A D15
=065 26959A D15
=103 91709A D16
=107 08632A A97D15F01J01
*127 08291D A97D21E19
=138 67081A B03C02D22

GB 2052
=945 03956D A97D13
=946 02290D D13
=949 03860D D13+Q3
*973 08296D D21E13
=977 05942D D21E16
*978 08298D B05D21
=983 09008D B04C03D16
=984 80741C A96D21
=989 08015D D22E16F09H08
*993 08301D D22S05P3

GB 2053
#019 11147C D17J01Q7
=024 02246D D15J01P3
*182 08324D D16H03
=183 41509C D15
*199 08329D D23E15
*201 08330D D23E13
=214 05082D C03D16
=216 05840D B02C02D13
*220 08334D A60B02C02D22
=221 05741D B03C02D16
=225 01233D A11D25
=228 05721D D13
=233 02329D A96B04D16K08R1
=249 86374C A87D25E19F06
=302 56925C A96D22F03
=373 88514C D14Q3+Q5R1
=458 00069D D11Q7

J4 9118
=866 08940D D13

J5 0035
=308 08985D B04D16

J5 1145
=184 94671X A35D22J04V05P3+P4Q7R4

J5 2098
=356 08978D D15

J5 3141
=600 08959D D22E14G02P8

J5 5089
*306 08372D A11D16

J5 5090
*856 08377D D15J04R1

J5 5143
*996 08388D B02D16

J5 5152
=796 82639C A96D21
=798 86732C A97D25E17
*799 08400D D25
*800 08401D D16F09P6
=862 68255C A97D25E19
=872 75874Y D21E24

J5 5153
*549 08437D D11
=551 84727C D12

J5 5153

J5 5153
* 552 08438D D12
* 554 08439D D13
* 555 08440D D13

558 82813C D13
* 561 08441D D13
=568 68162C C03D13
* 571 08442D D13
* 572 08443D D11
=587 84716C D22E16+P3
* 591 08444D D16
* 592 08445D B04D16
* 594 08446D A96B04D16
=595 84365C B05D16E19
=596 60783C B05D16E16
* 597 08447D B05D16
=598 86728C B01D16
=600 82993C A96B04D16+R1
* 708 08482D D21E33
* 709 08483D D21E34
* 710 08484D D21
* 711 08485D A96D21
=723 86753C B04D16
=786 86634C A97D13E13
=800 72017C B01C01D16K08R1

J5 5154
* 305 08600D D15E36
* 464 08648D B04D16R1
* 905 08712D C01D22E12F09
# 906 80779B C03D22E13H07
* 908 08713D A81C03D22F09
* 909 08714D D13E36G04
* 911 08716D A96B04D21
* 912 08717D D21E31
* 916 08719D B03D16
* 929 08725D D23E15
* 940 08734D D23E17
* 941 08735D B05D23E19
* 942 08736D B05D23E19
=958 45019C B03C02D22
* 982 08750D B03C01D22
* 994 D B04D16

J5 5155
=014 86749C A25D15
=096 69594C A97D25
* 097 08817D A97D25
=098 86862C A97D25E14
* 643 08851D A96B04D22P3
* 702 08853D D15
* 703 08854D A88D15J01
* 704 08855D A88D15J01
* 705 08856D A88D15J01
=706 86751C A41C04D15E14
* 707 08857D D15
* 708 08858D D15
* 709 08859D D15
* 713 08861D D15
* 714 08862D D15
* 715 08863D D15
* 736 08880D D15E32
* 777 08889D D15P4
* 778 08890D D15P4
* 785 08891D D15E36
* 786 08892D D15
* 789 08893D C04D15
* 790 08894D D15
* 792 08895D D15
* 797 08896D C04D15
* 798 08897D D15

J8 1000
=415 08346Y D23E15
* 440 08940D D13
=515 57554V A97D15
=539 08229W A94D15F04H05
* 580 08953D C03D22E14G02Q4
=675 55913A D15Q6
* 790 08959D D22E14G02P8

J8 1001
=050 24515Y D13
=051 93379X D13
=056 05013V A97D13
=058 84200X C03D13
=059 46910X C03D13E17
=061 31914C A91B03D13E13
=062 74263V D13
=063 30641V D23E13
=066 95140X D18E17+P1
=067 02973Y D18E17P1
=068 46202Y D18E13P1
=070 51403B B04D16
=071 82011X D16
=072 41760X D16
=073 43220A D16S03R1
=074 60737X D17
=075 43224A B05C03D16
=077 51404B B05D16E19
=078 61502U B05D16E16
=079 56513Y B01D16

J8 1001
=080 47988W A97D17
=125 39452A A88D15J01
=134 94671X A35D22J04V05P3+P4Q7R4
=147 62116Y A35D15E37M11+P4
=148 39600A D15
=149 58449Y D15F09
=150 29844A D15M28
=151 37546A D15
=152 37539A D15
=153 41082A D15
=154 61239A D15
=156 42977A D15
* 158 08978D D15
=159 35737A D15
=160 60960A D15Q7
* 289 08985D B04D16
=358 04418X D25E19
=360 37326A D25G04
=377 71238Y D21M26

NL 7905
* 285 08998D A96D21
* 305 08999D D11
# 357 73554B D13
=494 06192D D11Q3

NL 8003
* 504 09003D D16E17
=557 82659C A14D22+P3
=694 03919D D15
=759 05713D D23E15
* 889 09008D B04C03D16
=907 05715D D25E16
=922 05721D D13
=960 05725D D21E14
=963 05726D D21E14
=970 05741D B03C02D16
* 985 09011D B05D16

NL 8004
=020 80748C D13

NO 8001
=000 08256D D15F09
=690 84516C B04D16+P3
=691 73516C D13T05Q7+R1
=728 06046D A97D22E14S05P3R1

NO 8003
=406 71573C D22F07P2P7
=429 71575C C03D16

PT --65
762 09500Y D12

PT --67
=072 08409A A97D25Q3

PT --70
=256 27732C D25E19
=278 27748C A96D22E17P3
=399 35068C D21E33

PT --71
=480 82662C A14D22G02
=483 08107D C02D16
=487 03727D B04D16
=491 80741C A96D21
* 537 D B04C03D16
* 545 D D14
=612 86397C B04D16
* 614 D D13P4

RO --69
* 939 D B04D16

RO --72
=707 68825Y A97D25E19

RO --73
* 263 D D21
* 307 D A96D22F01P3
* 343 D D15F06
=359 66910Y D16
* 405 D D23E17
=411 82966Y B04C03D13
* 493 D B04D16
# 499 48054X A35D15H09+Q7
* 510 D D15E36J04S03R1
=533 17375V D13+Q7
* 588 D B05D16E16
* 604 D C03D15
=617 00070X A60D25E13F06
=647 82995Y B05C03D22E11
* 669 D A96D21
=690 14040A C03D13E19
* 695 D C03D22E16F09P6
=737 06375A D13
=776 54019U B04D16
* 783 D A96B04D16
* 860 D D16

RO --73
* 881 D B04C03D16

RO --74
* 001 D D15E36J04S03R1

SE 7903
=177 08256D D15F09

SE 7904
* 859 D D18
* 897 D B04C03D16
=938 73500C A96D22P3
* 951 D D12

SE 8000
=131 56909C A96B03D21E13

SE 8003
=561 00215D D22S05T06R2+P3
=800 73528C D22F07P3

SE 8004
=066 88368C B04D16
=096 88073C D12+P6
=128 90143C D12T06X25R2+Q3

SE 8006
=264 16467Y D25E13F06

SU -737
* 831 09056D D14S03X25R1
* 832 09057D D12S03X25R1

SU -738
=517 72706A B02C02D22
* 571 09066D C03D16
* 572 09067D D11X25
* 573 09068D D12
* 574 09069D D12T06X25
* 575 09070D D12
* 576 09071D D12T06X25
* 577 09072D D12
* 578 09073D D14
* 579 09074D D14
* 580 09075D D14
* 581 09076D D13
* 582 09077D A97D14
* 584 09079D C03D13
* 585 09080D B05C03D13
* 586 09081D D13
* 587 09082D D13
* 588 09083D D14
* 589 09084D D13P4
* 590 09085D D14
* 616 09086D D22P3
* 638 09097D D15
* 648 09107D D15J02
* 649 09108D D16J02
* 651 09110D D15E33J01
* 905 09218D D12P7
* 946 09222D D14Q3
* 955 09224D D11Q3
* 957 09225D D11Q3
* 995 09231D D15E36
* 999 09235D A91D15J01

SU -739
* 000 09236D D15J01
* 001 09237D D15
* 002 09238D A41D15E16
* 003 09239D D15E31J01M14
* 004 09240D D15
* 005 09241D D15
* 006 09242D D15E19
* 007 09243D D15E31
* 023 09259D D16L02
* 055 09290D D23E15
* 057 09292D D23E17
=077 75406Y A11B04D13E12
* 082 09313D D16E17H02
* 085 09316D D23
* 086 09317D D23
* 087 09318D D16
* 088 09319D D16
* 089 09320D D16
* 090 09321D D16
* 091 09322D D16T06X25
* 092 09323D D16
* 093 09324D D16
* 094 09325D D16
* 095 09326D D16
* 096 09327D B04D16
* 097 09328D D16
* 098 09329D D16
* 099 09330D D16
* 100 09331D D16
* 101 09332D D16
* 102 09333D B04D16
* 103 09334D D16
* 104 09335D D16
* 105 09336D D16

SU -739
* 106 09337D D17
* 107 09338D D17

* 218 09406D C02D22E13H01Q4
* 381 09409D B04D16S03R1
* 405 09415D D13S03R1
* 406 09416D D13S03R1
* 407 09417D D13S03R1

SU -740
=156 06341A B04D16
* 204 09425D C03D13P1
* 234 09430D A89B04D16J04P3R1
* 236 09432D D22P3
* 248 09433D B05D21E16
* 249 09434D B04C03D16
* 251 09436D B05D22
* 252 09437D D15P3

US 4245
* 372 09442D D12
=373 00173C D12P2
* 396 09445D A97C04D15Q7
* 494 09457D A89D13J04S03R1
* 552 09463D D13
=553 08060B D14+P2Q6
* 570 09465D D15Q7
* 613 09471D D11X27Q7
* 615 09472D D13X27
=630 12326A A96D22P3+P7
=744 54938B A81D21F04P2+Q3
* 936 09506D D14Q3
* 973 09509D D13Q3
=988 49736C D21P3
=996 91194B A97D18

US 4246
=009 20245B D18E33P1
* 084 09555D B04D16J04S03R1
=086 60630A D21P3
=098 69550C D13P4
* 099 09560D D16
* 100 09561D D15E17
* 101 09562D D15T06X25
=102 40781A D15
=103 83192Y D15E11M14
=104 39792Y D15
=105 84363A D15
* 111 09566D D15
* 112 09567D D15P4
* 113 09568D D15P4
* 114 09569D D15X25
* 119 09572D D15J01
=129 83011C D22E19
* 131 09578D D21E19
=178 44451B C02D13E13
* 179 09597D B02C02D22
=181 92054R D21E14P1
=182 82515A D23E17
* 184 09598D D23
* 194 09605D D16E16
=256 58294B B06D21
=257 36589A A96D21
* 258 09632D C03D16
* 285 09640D D21E16
=286 58788C D13E14
* 287 09641D B07D13E15
* 289 09643D D13
=290 71078A D11
* 291 09644D D13
=292 38855A B05D13E15
* 293 09645D D13
* 295 09647D A97D22K08P3P4
* 339 09663D B04D16
=340 71832B B02D16J04S03R1
* 341 09664D A89B04D16
=342 73838B B04D16J04S03R1
=343 43409Y B04D16J04S03R1
=344 77017C A96B04D16
=345 13241C B03D16E13
346 02075A A96B04D16
* 347 09665D D17E16
* 348 09666D B04D16
* 349 09667D B04D16
* 350 09668D A96B04D16
=351 33716A A97B04D16
* 352 09669D D16K08S03
=400 05741D B03C02D16
=417 86187B A41D15E16
=431 00106C D17E17
=462 29441Y D14X25X26Q7+R5

WP 8100
* 039 09709D D12
* 040 09710D D12
=041 05850D D12Q3
* 047 09711D A96D22P3
* 049 09712D D21
* 050 09713D A96B04D16
* 051 09714D A97D22E19P3
* 061 09720D D13E17
=063 07734D D16

8100
92 09727D A92D13J04Q3Q7
01 09728D D15
02 09729D D15Q4
06 86394C D25E16
13 06110D A97B04D16
14 03727D B04D16
15 07729D D16
16 09734D B04D16S03R1

3000
55 09506D D14Q3